



EH&S/Regulatory

October 25, 2018

VIA CERTIFIED MAIL 9414 8149 0108 4218 5848 61

Director, Air and Toxics Technical Enforcement Program
U.S. Environmental Protection Agency – Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

RECEIVED
OCT 31 2018
Office of Enforcement, Compliance
and Environmental Justice

Re: NSPS Subpart OOOOa Annual Report – Wyoming
Chesapeake Operating, L.L.C.

Dear Sir or Madam:

Per 40 C.F.R. § 60.5420a(b), Chesapeake Operating, L.L.C. is submitting the annual report for affected facilities under 40 C.F.R. §60.5365a for the reporting period beginning on August 2, 2017.

This certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

If you have any questions, please contact Jason Conway at (405) 935-6351.

Sincerely,

Chesapeake Operating, L.L.C.

(b) (6)

Tim Beard
Vice President – Rockies Business Unit

Enclosure

cc: Wyoming Department of Environmental Quality
Air Quality Division, Herschler Building
122 West 25th Street
Cheyenne, WY 82002

VIA CERTIFIED MAIL 9414 8149 0108 4218 5848 78

Well Name	State	County	Facility Name	United States Well Number	Latitude (" NAD83)	Longitude (" NAD83)	Onset of Flowback Following Hydraulic Fracturing or Refracturing (Date/Time)	Flow Directed to Separator (Date/Time)	Returned to Initial Flowback Stage (Date/Time)	Time Well Shut in and Flowback Equipment Permanently Disconnected or the Startup of Production (Date/Time)	Duration of Flowback (Hours)	Duration of Recovery (Hours)	Disposition of Recovery	Duration of Completion (Hours)	Duration of Venting (Hours)	Starting Date and Ending Date for the Period the Well Operated Under the Exception (Date)	Specific Reasons for Venting in Lieu of Capture or Combustion and/or for the Claim of Technical Infeasibility	Record of Deviations
BB 15-35-70 USA A SX 14H	CONVERSE	WYOMING	BB 15-35-70 USA A PAD	490001820	(b) (9)		10/25/17 10:00 AM	10/25/17 11:00 AM, 10/25/17 9:00 PM, 10/25/17 7:00 PM	10/25/17 7:00 PM		129	1	Sales	8	0			No Deviation
BB 35-35-72 USA A 19H 21H	CONVERSE	WYOMING	BB 35-35-72 USA A PAD	490004137			3/23/18 3:00 PM	03/24/18 6:00 PM, 05/24/18 11:00 PM, 02/25/18 2:00 AM, 08/25/18 11:00 PM, 03/27/18 1:00 AM, 03/27/18 6:00 AM, 03/15/18 6:00 PM, 05/25/18 7:00 PM	03/24/18 7:00 PM, 03/25/18 1:00 PM	3/25/18 8:00 PM	725	480	Sales	14	0			No Deviation
CLAUSEN 12-34-71 USA A SX 13H	CONVERSE	WYOMING	CLAUSEN RANCH UNIT 12-34-71 A PAD	490003889			3/1/18 3:00 PM	02/07/18 6:00 PM, 02/09/18 6:00 PM, 02/09/18 4:00 AM, 02/09/18 9:00 PM, 02/14/18 6:00 PM	02/14/18 3:00 PM	2/14/18 6:00 PM	315	130	Sales	15	0			No Deviation
CLAUSEN 12-34-71 USA A SX 13H	CONVERSE	WYOMING	CLAUSEN RANCH UNIT 12-34-71 A PAD	490003058			3/1/18 9:00 PM	02/07/18 3:00 PM	3/8/18 7:00 AM		154	1	Sales	16	0			No Deviation
CLAUSEN 12-34-71 USA A SX 13H	CONVERSE	WYOMING	CLAUSEN RANCH UNIT 12-34-71 A PAD	490003050			3/1/18 9:00 PM	02/09/18 7:00 AM, 02/09/18 8:00 PM	2/9/18 8:00 PM		170	1	Sales	11	0			No Deviation
CLAUSEN 15-34-70 USA A SX 13H	CONVERSE	WYOMING	CLAUSEN RANCH 15-34-70 USA A PAD	490003064			7/25/18 7:00 AM	07/26/18 8:00 AM	7/26/18 8:00 AM		25	0		1	0			No Deviation
CLAUSEN 7-34-70 USA A SX 12H	CONVERSE	WYOMING	CLAUSEN RANCH U 7-34-70 USA A P	490003037			7/3/18 7:00 PM	07/04/18 1:00 AM, 07/05/18 5:00 PM	02/05/18 4:00 PM	7/11/18 7:00 PM	216	171	Sales	13	0			No Deviation
CLAUSEN 7-34-70 USA A SX 14H	CONVERSE	WYOMING	CLAUSEN RANCH U 7-34-70 USA A P	490003635			7/1/18 4:00 PM	07/02/18 7:00 PM, 07/05/18 4:00 PM	07/02/18 6:00 PM	7/11/18 7:00 PM	240	207	Sales	12	0			No Deviation
CLAUSEN 8-34-70 A SX 14H	CONVERSE	WYOMING	CLAUSEN RANCH UNIT 8-34-70 A PAD	490003316			7/16/18 7:00 PM	07/16/18 4:00 AM	7/16/18 4:00 AM		33	1	Sales	0	0			No Deviation
CLAUSEN 8-34-70 USA B 7H 23H	CONVERSE	WYOMING	CLAUSEN RANCH 8-34-70 B PAD	490004405			7/14/18 1:00 PM	07/14/18 4:00 PM	7/15/18 1:00 PM		24	6	Sales	16	0			No Deviation
CLAUSEN 8-34-70 USA ST B 7H 8H	CONVERSE	WYOMING	CLAUSEN RANCH 8-34-70 B PAD	490005317			7/16/18 3:00 AM	07/16/18 6:00 AM	7/16/18 11:00 AM		6	1	Sales	7	0			No Deviation
COMBS 13-33-71 A 18 25H	CONVERSE	WYOMING	COMBS 13-33-71 A PAD	490007130			7/24/18 6:00 PM	07/24/18 6:00 PM	7/26/18 3:00 AM		33	22	Sales	9	0			No Deviation
COMBS 15-33-70 USA B SX 13H	CONVERSE	WYOMING	COMBS RANCH 15-33-70 B PAD	490003005			8/18/17 11:00 AM	08/19/17 5:00 AM, 10/08/17 5:00 PM, 10/08/17 7:00 PM	10/6/17 10:00 PM		443	160	Sales	280	0		Additional time was required to complete construction on the permanent equipment. Resumption of gas as a form of enhanced oil recovery or liquefaction was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, so no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
COMBS 15-33-70 USA B SX 15H	CONVERSE	WYOMING	COMBS RANCH 15-33-70 B PAD	490003096			9/15/17 9:00 PM	09/16/17 11:00 PM	9/29/17 6:00 PM		285	1	Sales	280	0		Additional time was required to complete construction on the permanent equipment. Resumption of gas as a form of enhanced oil recovery or liquefaction was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, so no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
COMBS 25-33-70 USA B SX 15H	CONVERSE	WYOMING	COMBS RANCH 25-33-70 B PAD	490003925			3/16/18 6:00 PM	03/16/18 11:00 PM, 03/17/18 3:00 PM	3/17/18 4:00 PM		22	1	Sales	8	0			No Deviation
COMBS 25-33-70 USA B SX 13H	CONVERSE	WYOMING	COMBS RANCH 25-33-70 B PAD	490002816			3/16/18 7:00 PM	03/16/18 2:00 AM, 03/17/18 2:00 AM	03/16/18 7:00 PM	3/17/18 3:00 PM	20	1	Sales	13	0			No Deviation
COMBS 7-33-70 USA C SX 12H	CONVERSE	WYOMING	COMBS RANCH 7-33-70 USA C PAD	4900031403			10/19/17 8:00 PM	10/19/17 10:00 PM	10/19/17 10:00 PM		4	1	Sales	0	0			No Deviation
COMBS 7-33-70 USA C SX 13H	CONVERSE	WYOMING	COMBS RANCH 7-33-70 USA C PAD	4900031459			10/21/17 8:00 PM	10/20/17 9:00 PM, 10/23/17 11:00 AM	10/4/17 2:00 AM		32	1	Sales	19	0			No Deviation
COMBS 7-33-70 USA C SX 14H	CONVERSE	WYOMING	COMBS RANCH 7-33-70 USA C PAD	4900031490			10/23/17 10:00 PM	10/23/17 10:00 PM	10/23/17 10:00 PM		18	1	Sales	0	0			No Deviation
COMBS 7-33-70 USA C SX 15H	CONVERSE	WYOMING	COMBS RANCH 7-33-70 USA C PAD	4900031461			10/5/17 7:00 PM	10/20/17 5:00 AM, 10/20/17 8:00 PM, 10/21/17 10:00 AM, 10/22/17 2:00 PM, 10/26/17 4:00 PM, 10/26/17 11:00 PM, 10/14/17 6:00 PM, 10/11/17 7:00 PM, 10/12/17 7:00 AM, 10/12/17 10:00 AM, 10/14/17 1:00 PM, 10/14/17 5:00 PM, 10/15/17 10:00 PM, 10/17/17 8:00 PM	10/20/17 3:00 PM, 10/26/17 6:00 PM, 10/12/17 8:00 AM, 10/14/17 3:00 PM, 10/14/17 6:00 PM, 10/15/17 2:00 AM, 10/15/17 7:00 AM, 10/15/17 7:00 AM, 10/17/17 11:00 AM	10/13/17 8:00 PM	289	213	Sales	0	0			No Deviation
COMBS 7-33-70 USA C SX 16H	CONVERSE	WYOMING	COMBS RANCH 7-33-70 USA C PAD	4900031402			10/6/17 1:00 AM	10/6/17 3:00 AM	10/6/17 3:00 AM		2	1	Sales	0	0			No Deviation

Well Name	State	County	Facility Name	United States Well Number	Latitude (° NAD83)	Longitude (° NAD83)	Onset of Flowback Following Hydraulic Fracturing or Redrilling (Date/Time)	Flowback to Separator (Date/Time)	Returned to Initial Flowback Stage (Date/Time)	Time Well Shut in and Flowback Equipment Permanently Decommissioned or the Startup of Production (Date/Time)	Duration of Flowback (Hours)	Duration of Recovery (Hours)	Disposition of Recovery	Duration of Completion (Hours)	Duration of Venting (Hours)	Starting Date and Ending Date for the Period the Well Operated Under the Exception (Date)	Specific Reasons for Venting to Lines of Capture or Combustion and/or for the Claim of Technical Infeasibility	Record of Deviations
COMBS 5-35-70 A SE 13H	CONVERSE	WYOMING	COMBS RANCH UNIT 33-70 S 14 PAD	490002907	(b) (9)		8/16/17 5:00 PM	09/16/17 4:00 AM 09/16/17 10:00 AM 09/16/17 5:00 PM 09/16/17 11:00 PM 09/20/17 9:00 PM 09/21/17 9:00 AM 09/21/17 1:00 PM 09/21/17 4:00 AM 09/21/17 1:00 PM 09/21/17 5:00 PM 09/21/17 1:00 PM 09/22/17 7:00 AM 09/22/17 5:00 AM 09/22/17 10:00 AM 09/22/17 12:00 PM 09/23/17 5:00 PM 09/23/17 10:00 PM 09/23/17 8:00 AM 09/23/17 11:00 PM 09/23/17 2:00 PM	09/20/17 9:00 PM 09/21/17 12:00 AM 09/21/17 5:00 AM 09/21/17 12:00 PM 09/22/17 7:00 AM 09/23/17 11:00 AM 09/23/17 5:00 PM 09/23/17 10:00 PM 09/23/17 8:00 AM 09/23/17 11:00 AM	9/23/17 2:00 PM	105	95	Sales	4	0		No Deviation	
COMBS 5-35-70 USA A SE 13H	CONVERSE	WYOMING	COMBS RANCH UNIT 33-70 S 14 PAD	490003009			9/16/17 7:00 PM	10/20/17 9:00 AM 10/21/17 2:00 PM	10/31/7 5:00 AM	1080	21	Sales	25	0		No Deviation		
COMBS 5-35-70 USA A SE 13H	CONVERSE	WYOMING	COMBS RANCH UNIT 33-70 S 14 PAD	490003008			8/23/17 10:00 AM	08/28/17 2:00 PM	9/28/17 2:00 PM	148	1	Sales	0	0		No Deviation		
GRAHAM 23-35-71 A TR 12H	CONVERSE	WYOMING	GRAHAM 23-35-71 A PAD	490001701			9/9/17 4:00 PM	09/28/17 11:00 PM	9/29/17 5:00 AM	14	1	Sales	7	0		No Deviation		
LEBAR 15-34-69 A TR 12H	CONVERSE	WYOMING	LEBAR 15-34-69 A PAD	490002488			12/1/17 8:00 PM	12/01/17 8:00 PM	12/21/17 2:00 PM	30	1	Sales	18	0		No Deviation		
LINDEN 15-34-69 B TR 12H	CONVERSE	WYOMING	LINDEN 15-34-69 B PAD	490003012			4/24/18 5:00 PM	04/25/18 5:00 AM 04/25/18 5:30 PM	5/2/18 11:00 AM	183	140	Sales	6	0		No Deviation		
LINDEN 15-34-69 B TR 12H	CONVERSE	WYOMING	LINDEN 15-34-69 B PAD	490003011			4/24/18 5:00 PM	04/25/18 5:00 PM	5/2/18 11:00 AM	182	180	Sales	3	0		No Deviation		
LINDEN 15-34-69 USA A TR 20H	CONVERSE	WYOMING	LINDEN UNIT 15-34-69 A PAD	490003498			4/10/18 9:00 PM	04/12/18 2:00 AM	4/12/18 10:00 AM	37	1	Sales	9	0		No Deviation		
LINDEN 15-34-69 USA A TR 21H	CONVERSE	WYOMING	LINDEN UNIT 15-34-69 A PAD	490003499			4/22/18 9:00 PM	04/25/18 5:00 PM	4/25/18 5:00 PM	30	1	Sales	0	0		No Deviation		
LINDEN 15-34-69 USA A TR 22H	CONVERSE	WYOMING	LINDEN UNIT 15-34-69 A PAD	490003490			4/11/18 3:00 PM	04/11/18 3:00 PM	4/12/18 1:00 AM	10	1	Sales	10	0		No Deviation		
LINDEN 15-34-69 USA A TR 24H	CONVERSE	WYOMING	LINDEN UNIT 15-34-69 A PAD	490003491			4/12/18 7:00 PM	04/10/18 10:00 PM	4/11/18 10:00 AM	15	1	Sales	12	0		No Deviation		
SFU 13-34-72 USA B TR 17H	CONVERSE	WYOMING	SFU 13-34-72 USA B PAD	490005125			6/25/18 8:00 PM	06/25/18 9:00 PM	6/26/18 4:00 PM	30	0		30	0		No Deviation		
SFU 13-34-72 USA B TR 20H	CONVERSE	WYOMING	SFU 13-34-72 USA B PAD	490005124			6/26/18 3:00 PM	06/26/18 4:00 PM	6/26/18 4:00 PM	1	0		1	0		No Deviation		
WYOMING 36-34-69 S TR 3H	CONVERSE	WYOMING	WYOMING 36-34-69 ST S PAD	490003123			6/25/18 5:00 AM	06/28/18 5:00 AM 06/28/18 8:00 AM	6/26/18 12:00 PM	9	1	Sales	6	0		No Deviation		
YORK RANCH 33-89-A TR 10H	CONVERSE	WYOMING	YORK RANCH 33-89-A PAD	490003496			11/30/17 12:00 PM	11/30/17 9:00 AM	11/30/17 8:00 PM	104	1	Sales	50	0		The third party gathering line was not available to accept gas. Crews must wait on third party gathering line operator to open the gas line. Reception of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of being during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation	
YORK RANCH 33-89-A TR 12H	CONVERSE	WYOMING	YORK RANCH 33-89-A PAD	490003490			11/30/17 12:00 PM	11/30/17 1:00 PM	11/30/17 8:00 PM	80	1	Sales	50	0		The third party gathering line was not available to accept gas. Crews must wait on third party gathering line operator to open the gas line. Reception of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of being during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation	

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2017 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Nick Haas and Jesse Sumptin
Operator Training and Experience	Trained and Certified for Optical Gas Imaging March 2016

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOOa Survey Date	OOOOa Survey Start Time	OOOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(ii)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(vi)
914573	LINDEN UNIT 19-34-69 A PAD	(b) (9)		7/10/2017	12:30	13:50	82	Partly Cloudy	7	2	Thief Hatch (2)	7/10/2017	OGI	0	0	0	N
920033	RANKIN 5-33-68 A PAD			7/12/2017	9:40	11:30	70	Partly Cloudy	3	2	Gauge(1), Union (1)	7/12/2017	OGI	0	0	0	N
920086	COMBS RANCH 16-33-70 B PAD			8/4/2017	8:00	10:00	59	Overcast	8	0	N/A	N/A	N/A	0	0	0	N
914960	SUNDQUIST FLATS UNIT 9 34-71 A PAD			8/7/2017	11:28	12:40	72	Overcast	8	0	N/A	N/A	N/A	0	0	0	N
902663	NW FETTER 15-33-71 A PAD			8/10/2017	12:48	13:39	60	Overcast	2	0	N/A	N/A	N/A	0	0	0	N
919261	COMBS RANCH 7-33-70 B PAD			8/11/2017	11:30	13:30	76	Sunny	8	0	N/A	N/A	N/A	0	0	0	N
922349	COMBS RANCH 17-33-70 USA B PAD			8/22/2017	10:12	13:20	71	Sunny	5	0	N/A	N/A	N/A	0	0	0	N
902673	COMBS RANCH 21-33-70 USA A PAD			10/5/2017	9:00	10:50	45	Partly Cloudy	5	0	N/A	N/A	N/A	0	0	0	N
922348	COMBS RANCH 17-33-70 C PAD			10/10/2017	9:08	14:30	33	Sunny	1	6	Thief hatch (3) thread (2) union (1)	10/11/2017	OGI	0	0	0	N
902674	COMBS RANCH 7-33-70 USA C PAD			10/11/2017	9:15	10:54	43	Sunny	3	1	Union	10/11/2017	OGI	0	0	0	N
911665	COMBS RANCH UNIT 33-70 B-1H PAD	10/11/2017	9:45	12:46	55	Sunny	1	2	hammer union (1) bushing (1)	10/11/2017	OGI	0	0	0	N		
914818	GRAHAM 23-35-71 A PAD	11/2/2017	15:00	18:13	27	Overcast	2	0	N/A	N/A	N/A	0	0	0	N		

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2017 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOo Survey Date	OOOo Survey Start Time	OOOo Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)
920033	RANKIN 5-33-68 A PAD	(b) (9)	(b) (9)	1/12/2018	13:00	14:50	3	Overcast	3	1	Valve	43112	OGI	0	0	0	N
909630	NORTHWEST FETTER 1-33-72 A PAD	(b) (9)	(b) (9)	1/16/2018	14:00	14:45	0	Sunny	0	1	Thief Hatch	43116	OGI	0	0	0	N
922349	COMBS RANCH 17-33-70 USA B PAD	(b) (9)	(b) (9)	1/17/2018	14:45	15:50	7	Sunny	7	2	Connector (1) Fitting (1)	1/17/2018	OGI	0	0	0	N
902663	NW FETTER 15-33-71 A PAD	(b) (9)	(b) (9)	1/17/2018	13:30	14:30	7	Sunny	7	1	Regulator	1/17/2018	OGI	0	0	0	N
920086	COMBS RANCH 16-33-70 B PAD	(b) (9)	(b) (9)	1/25/2018	13:20	13:45	20	Overcast	4	0	N/A	N/A	N/A	0	0	0	N
914960	SUNDQUIST FLATS UNIT 9 34-71 A PAD	(b) (9)	(b) (9)	1/30/2018	13:45	15:00	18	Overcast	18	5	Connector (2) Valve (2) Thief Hatch (1)	43130	OGI	0	0	0	N
919261	COMBS RANCH 7-33-70 B PAD	(b) (9)	(b) (9)	2/8/2018	10:50	11:45	20	Overcast	14	1	Thief Hatch	2/8/2018	OGI	0	0	0	N
912527	YORK RANCH 33-69-5 A PAD	(b) (9)	(b) (9)	2/19/2018	9:05	10:15	20	Snow	2	4	Thief Hatch (2) Valve (2)	43150	OGI	0	0	0	N
922348	COMBS RANCH 17-33-70 C PAD	(b) (9)	(b) (9)	2/28/2018	8:25	9:30	20	Overcast	2	4	Fitting (2) Thief Hatch (1) Valve (1)	2/28/2018	OGI	0	0	0	N
928994	LEBAR 15-34-69 A PAD	(b) (9)	(b) (9)	3/8/2018	14:25	15:25	20	Sunny	7	2	Fitting (2)	3/8/2018	OGI	0	0	0	N
914477	CLAUSEN RANCH UNIT 12 34-71 A PAD	(b) (9)	(b) (9)	3/9/2018	7:45	8:55	20	Sunny	14	5	Thief Hatch (2) Fitting (3)	43168	OGI	0	0	0	N
928230	BB 19-35-70 USA A PAD	(b) (9)	(b) (9)	3/12/2018	13:10	13:50	20	Overcast	2	3	Fitting (1) Thief Hatch (2)	3/12/2018	OGI	0	0	0	N
912906	SUNDQUIST 19-34-72 A PAD	(b) (9)	(b) (9)	3/27/2018	7:40	8:20	20	Sunny	0	2	Thief Hatch (2)	43186	OGI	0	0	0	N
929058	BB 35-35-72 USA A PAD	(b) (9)	(b) (9)	3/29/2018	10:40	11:30	20	Overcast	11	2	Valve (1) Thief Hatch (1)	3/29/2018	OGI	0	0	0	N
922595	COMBS RANCH 28-33-70 B PAD	(b) (9)	(b) (9)	4/9/2018	8:40	10:00	20	Partly Cloudy	3	2	Fitting (1) Thief Hatch (1)	43199	OGI	0	0	0	N

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2017 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOa Survey Date	OOOa Survey Start Time	OOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(ii)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(vi)
914573	LINDEN UNIT 19-34-69 A PAD	(b) (9)		4/17/2018	7:20	8:45	20	Sunny	7	10	Thief Hatch (6) Connector (3) Fitting (1)	4/17/2018	OGI	0	0	0	N
914818	GRAHAM 23-35-71 A PAD			6/11/2018	9:10	10:10	20	Sunny	5	2	Valve (2)	4/3262	OGI	0	0	0	N
902674	COMBS RANCH 7-33-70 USA C PAD			6/22/2018	11:05	12:05	20	Sunny	2	9	Valve (1) Thief Hatch (8)	4/3273	OGI	0	0	0	N
902673	COMBS RANCH 21-33-70 USA A PAD			6/25/2018	10:35	11:35	20	Sunny	2	2	Thief Hatch (2)	4/3276	OGI	0	0	0	N
922365	LINDEN 19-34-69 B PAD			6/26/2018	8:50	10:05	20	Sunny	2	7	Thief Hatch (2) Fitting (3) Valve (1) Connector (1)	4/3277	OGI	0	0	0	N
911665	COMBS RANCH UNIT 33-70 B-1H PAD			6/27/2018	13:40	14:55	20	Sunny	4	15	Thief Hatch (11) Valve (3) Fitting (1)	4/3278	OGI	0	0	0	N

NSPS Subpart OOOOa annual report for period beginning 8/2/2017 - Storage Vessels

Company name: Chesapeake Exploration, L.L.C.

No affected facilities removed from or returned to service during reporting period.

Facility Name	API Well IDs	Latitude (NAD83)	Longitude (NAD83)	Serial Number(s)	VOC Emission Rate (TPY/tank). Promax Calculation Methodology	(iii) Deviations Specified in §§60.5395a, 60.5411a, 60.5412a, and 60.5413a	(iv) Meets requirements specified in §60.5410a(h) (2) and (3)
LEBAR 15-34-69 A PAD	4900932488	(b) (9)		C1709035	377.44	See Appendix Section 2: Continuous Pilot Flame Records	Yes
				C1709037			
				C1709038			
				C1709036			
				C1709029			
YORK RANCH 33-69-S A PAD				C1709030			
	4900934499	(b) (9)		EC418-077	289.68	See Appendix Section 2: Continuous Pilot Flame Records	Yes
	4900934500			EC418-073			
	4900928429			EC409-486			
				EC409-487			
				C1709016			
				C1709015			
				C1709005			
				C1709024			
				C1709023			
				C1709006			
				C1709010			
				C1709007			
				C1709008			
				C1709026			
				C1709018			
				C1709001			

NSPS Subpart 0000 annual report for period beginning 8/2/2017 - Storage Vessels

Company name: Chesapeake Exploration, L.L.C.

60.5420a(c)(5)(vi)(A) - (F) Records for Storage Vessels Constructed, Modified, or Reconstructed during the reporting period

See Appendix for additional reported information

Site	Combustor Make and Model	Serial Number	Purchase Date	Location LAT/LON	Inlet gas flow rate (MMBTU/H)
LEBAR 15-34-69 A PAD	Cimarron ECD-HV-48"	5903923; 5903924	10/10/2017; 10/10/2017	(b) (9)	2.38
YORK RANCH 33-69-S A PAD	Cimarron ECD-HV-48"	5901915; 5903926; 5903925	7/29/2013; 10/10/2017; 10/10/2017		1.61

Appendix: Record Requirements for 60.5420a(c)(5)(vi)(A)-(F) and 60.5420a(b)(12)

CONTENTS

- 1 Copies of Control Device Purchase Orders
- 2 Continuous Pilot Flame Records
- 3 Monthly Visible Emission Inspection Records
- 4 Control Device Maintenance
- 5 Manufacturer Operations and Maintenance Manual
- 6 Signed PE Certificaitons for Closed Vent Systems

1. Copies of Control Device Purchase Orders



Invoice

Cimarron Energy Inc.

P O Box 722110

Norman, OK 73070

Phone: (405) 928-7373

Fax: (405) 928-7380

Invoice: 0020207-IN

Date: 7/29/2013

Bill To:	Ordered by:
Chesapeake Energy P.O. Box 548806 Oklahoma City, OK 73154-8806	KENT MARVEL
	SN # SEE BELOW
Ship Date: 7/26/13	Region: WYOMING WO#: RQ049052

ORIGINAL

Customer P.O.	Qty #	Sales Rep	F.O.B.	SHIP VIA	Terms	Tax ID
081155	SO 33529	J & A / TK	DOUGLAS WY	LYNNCO	NET 30	26-0639252
Qty	Description	Unit Price	Total Amount			

ACCOUNT CODE: INV-OK PROD EQUIP. INVENTORMFG: CIMARRON

PROPERTY: NAME BASIC ENERGY SRVCS

PROPERTY #: 91907

3.00 ECD 48 HV W/ 20' STACK 2" \$20,300.00 \$60,900.00

S/N'S 59019-15, 59019-16, 59019-17

3.00 48" BIRD CONE \$900.00 \$2,700.00

SHIPPED VIA: LYNNCO TO DOUGLAS WY DT-1639

COUNTY: CONVERSE

WO# 5901917, 5901916, 5901915

RECEIVED

JUL 30 2013

IMAGING
(19)

Net Invoice: \$63,600.00

Freight: \$847.00

Sales Tax: \$3,816.00

Invoice Total: \$68,263.00

New Remit
Lockbox

Cimarron Energy Inc.
P.O. Box 223857
Pittsburgh, PA 15251-2857

New Remit
ACH/Wire

Account 103-3461
Cimarron Energy Inc.
BNY Mellon N.A.
500 Ross Street, Pittsburgh, PA
ABA 043 000 261
Swift: MELNUS3P XXX



DELIVERY TICKET

NO. _____

Date 7/22/2013

Ship From EVANS

DELIVERY

CUSTOMER	CHESAPEAKE	INITIAL COMPANY
	BASIC ENERGY YARD	
	DOUGLAS, WY	
	POC: HEATHER 307-259-4246	

Special Instructions

REMARK: MUST CALL 24 HOURS PRIOR TO DELIVERY

EQUIPMENT

UNIT DESCRIPTION (3) HV 48" ECD5 W/ 20' STACK AND (3) 48" BIRD CONES UNIT SERIAL NO. _____
(Work Order No.)

SERIAL NO. 59019-15

SERIAL NO. 59019-16

SERIAL NO. 59019-17

SERIAL NO. _____

SERIAL NO. _____

SERIAL NO. _____

Ignition

SERIAL NO. _____

SERIAL NO. _____

SERIAL NO. _____

SERIAL NO. _____

SERIAL NO. _____

SERIAL NO. _____

CIMARRON EMPLOYEE: (b) (6)

7/22/13

VERIFIES THAT THE SERIAL NUMBERS LISTED

ABOVE MATCH THE WORK ORDER NUMBER SPECIFIED. THIS SIGNATURE ALSO VERIFIES THAT ALL SECURITY TAGS ARE PROPERLY

ATTACHED TO THE UNIT AT THE TIME OF SHIPMENT.

NOTES:

RECEIPT

RECEIVED IN GOOD ORDER BY

DATE 7/22/13



Property Name Basic Energy Svcs	081155	Brandon Vandervoort
Property Number 919107	Purchase Order #	Requested By Kent Marvel
AFE Number	Yard Release #	Phone (307) 234 9045 Fax (307) 234-6627
Vendor Name: CIMARRON ENERGY INC		Released By
Vendor Refs# #		FOB
BASIC ENERGY SVCS YARD		Ship Via
Asst: 0		
CC: CONVERSE		
ST: WY		
Headline 307.259.4246		
Shipped From	Shipped To	
12.00 Each	07684 - COMBUSTER 48" HV ELD	ACCT CODE INV-OK PROD EQUIP. INVENTOR:MFG: CIMARRON
Material Description		
Instructions: Inventory at Basic Yard.		
<p> <i>20,300.00 ELD</i> <i>900.00 BIRD CONES</i> </p>		
Distributions:		



Invoice Number: EV00002666
Page: 2 of 2
Date: 10/10/2017
Salesperson:

CH00002

B Chesapeake Operating LLC
I 6100 North Western Ave
L Oklahoma City OK 73118
L
T
O

S Chesapeake Operating LLC
H 6100 North Western Ave
I Oklahoma City OK 73118
P
T
O

Fax:

Order	Purchase Order	Weight	Ship Via	Terms	
EEQ0000288	4500268454		Customer Pickup	Net 60	
Line/Rel	Qty Ordered	Qty Shipped	Back Order	Unit Price	Extended Price

S/NS

5903924, 5903923, 5903927, 5903928, 5903925, 5903926

YORK RANCH 33-69-5 A PAD
LINDEN 19-34-69B PAD
COMBS RANCH 28-33-70 B PAD

SUPPLIER: 30007278/ 20034212

PICKED UP BY:
CHARLIE IVES- RICHARDSON TRUCKING
GEORGE BAKER-RICHARDSON TRUCKING

TO: 6 MILE YARD

(2) TRUCKS THREE UNITS PER TRUCK

Remit to Lockbox
Cimarron Energy Inc.
Dept 699
P.O. Box 4346
Houston, TX 77210-4346

Remit ACH/Wire
Account: 5791940264
Cimarron Energy Inc.
Amegy Bank of Texas
Houston, TX 77002
ABA#: 113011258
Swift Code: SWBKUS44
Tel: (713)235-8811

Sales Amount	115,800.00
Misc Charges	0.00
Freight	0.00
Sales Tax	7,411.20
Prepaid Amount	0.00
Total	123,211.20



Invoice Number: EV00002666
Page: 1 of 2
Date: 10/10/2017
Salesperson:

CH00002

B Chesapeake Operating LLC
I 6100 North Western Ave
L Oklahoma City OK 73118
L
T
O

S Chesapeake Operating LLC
H 6100 North Western Ave
I Oklahoma City OK 73118
P
T
O

Fax:

Order	Purchase Order	Weight	Ship Via	Terms	
EEQ0000288	4500268454		Customer Pickup	Net 60	
Line/Rel	Qty Ordered	Qty Shipped	Back Order	Unit Price	Extended Price
1	6.000				115,800.00

Item: ECDHV2

Description: ECD: HV 48" W/ 2" PLUMBING

U/M: EA

Date Shipped: 10/4/2017

Lot Number: 5903927

Lot Number: 5903928

Lot Number: 5903923

Lot Number: 5903924

Lot Number: 5903925

Lot Number: 5903926

2 6.000

Item: 123735

Description: KIT: HV ECD STACK ASSEMBLY (3500502)

U/M: EA

Date Shipped: 10/4/2017



CUSTOMER PICK UP **EEQ 288**

ALL AVAILABLE INFORMATION MUST BE ENTERED ON THIS FORM!!

DATE 10/4/17

LOADED BY Lee

CUSTOMER/COMPANY Chesapeake

FOREMAN Mike Genzler

COMPANY (CREW) PICKED UP BY Richardson Trucking

NAME (PLEASE PRINT) Charlie Ives

LEASE NAME AND NUMBER Le Mile Yard

UNIT TYPE (3) 48" HV ECDs, 20' stacks
8x8x8 pad w/anchors

UNIT SERIAL NUMBER 5903924, 5903923, 5903927

CIMARRON WORK ORDER #

ARC IGNITION SYSTEM

ACTUATOR #

DATA LOGGER #

DRIP TANK (SIZE)

SCRUBBER POT (SIZE & SERIAL NUMBER)

FLAME ARRESTOR (SIZE 2 OR 3)

MISC PARTS

(b) (6)

PICKED UP BY SIGNATURE

DATE 10-4-17



CUSTOMER PICK UP EEO 288

ALL AVAILABLE INFORMATION **MUST** BE ENTERED ON THIS FORM!!

DATE 10/4/17
LOADED BY Lee
CUSTOMER/COMPANY Chesapeake
FOREMAN Mike Genzler
COMPANY (CREW) PICKED UP BY Richardson Trucking
NAME (PLEASE PRINT) George Baker
LEASE NAME AND NUMBER 6 Mile Yard

UNIT TYPE (B) HV ECD's w/ 20' stacks

UNIT SERIAL NUMBER 8x8x8 pads w/ anchors
5903928, 5903925, 5903926

CIMARRON WORK ORDER # _____

ARC IGNITION SYSTEM _____

ACTUATOR # _____

DATA LOGGER # _____

DRIPTANK (SIZE) _____

SCRUBBER POT (SIZE & SERIAL NUMBER) _____

FLAME ARRESTOR (SIZE 2 OR 3") _____

WISC PARTS _____

TELEPHONE # _____

PICKED UP BY SIGNATURE

(b) (6)

DATE 10 4 17

EEO 288

Purchase Order: 4500268454

Date Created: 07/13/2017

Requested By: Jon Massey

E-mail: Nadia.Denfour@chk.com

CHESAPEAKE OPERATING, LLC
6100 NORTH WESTERN AVE.
OKLAHOMA CITY
OK
73118



Bill Invoices to this Company:
CHK OPERATING LLC

Supplier: 30007278/20034212

CIMARRON ENERGY INC
11025 EQUITY DR STE 200
HOUSTON
TX
77041-8247
Phone: 405-515-8260-0
Fax:

Ship To:

Refer to Supplier Memo

Freight Terms:

Payment Terms: DUE WITHIN 60 DAYS 0%

Item#	Material #	Description	Supplier Part#	QTY	UoM	Del. date	Unit Price	Total
10	307884	COMBUSTOR: 48"		6	EA	10/01/2017	19,300.00	115,800.00 USD

Material PO Text:

Item Text:

Work Order #

Supplier Memo: Requested by Jon Massey and Mike Genzler for:
YORK RANCH 33-88-5 A PAD
LINDEN 19-34-68 B PAD
Comita Ranch 28-33-70 B PAD

Bill freight separate

Total PO COSTS:

115,800.00 USD

2. Continuous Pilot Flame Records

LEBAR (5-34) 00 A P90

Item	Combustion 1 (Temperature) Time (sec)	Combustion 2 (Temperature) Time (sec)	Pressure (psi)	Comments
01-0000-00	0000	0000	0	
01-0000-01	0000	0000	0	
01-0000-02	0000	0000	0	
01-0000-03	0000	0000	0	
01-0000-04	0000	0000	0	
01-0000-05	0000	0000	0	
01-0000-06	0000	0000	0	
01-0000-07	0000	0000	0	
01-0000-08	0000	0000	0	
01-0000-09	0000	0000	0	
01-0000-10	0000	0000	0	
01-0000-11	0000	0000	0	
01-0000-12	0000	0000	0	
01-0000-13	0000	0000	0	
01-0000-14	0000	0000	0	
01-0000-15	0000	0000	0	
01-0000-16	0000	0000	0	
01-0000-17	0000	0000	0	
01-0000-18	0000	0000	0	
01-0000-19	0000	0000	0	
01-0000-20	0000	0000	0	
01-0000-21	0000	0000	0	
01-0000-22	0000	0000	0	
01-0000-23	0000	0000	0	
01-0000-24	0000	0000	0	
01-0000-25	0000	0000	0	
01-0000-26	0000	0000	0	
01-0000-27	0000	0000	0	
01-0000-28	0000	0000	0	
01-0000-29	0000	0000	0	
01-0000-30	0000	0000	0	
01-0000-31	0000	0000	0	
01-0000-32	0000	0000	0	
01-0000-33	0000	0000	0	
01-0000-34	0000	0000	0	
01-0000-35	0000	0000	0	
01-0000-36	0000	0000	0	
01-0000-37	0000	0000	0	
01-0000-38	0000	0000	0	
01-0000-39	0000	0000	0	
01-0000-40	0000	0000	0	
01-0000-41	0000	0000	0	
01-0000-42	0000	0000	0	
01-0000-43	0000	0000	0	
01-0000-44	0000	0000	0	
01-0000-45	0000	0000	0	
01-0000-46	0000	0000	0	
01-0000-47	0000	0000	0	
01-0000-48	0000	0000	0	
01-0000-49	0000	0000	0	
01-0000-50	0000	0000	0	
01-0000-51	0000	0000	0	
01-0000-52	0000	0000	0	
01-0000-53	0000	0000	0	
01-0000-54	0000	0000	0	
01-0000-55	0000	0000	0	
01-0000-56	0000	0000	0	
01-0000-57	0000	0000	0	
01-0000-58	0000	0000	0	
01-0000-59	0000	0000	0	
01-0000-60	0000	0000	0	
01-0000-61	0000	0000	0	
01-0000-62	0000	0000	0	
01-0000-63	0000	0000	0	
01-0000-64	0000	0000	0	
01-0000-65	0000	0000	0	
01-0000-66	0000	0000	0	
01-0000-67	0000	0000	0	
01-0000-68	0000	0000	0	
01-0000-69	0000	0000	0	
01-0000-70	0000	0000	0	
01-0000-71	0000	0000	0	
01-0000-72	0000	0000	0	
01-0000-73	0000	0000	0	
01-0000-74	0000	0000	0	
01-0000-75	0000	0000	0	
01-0000-76	0000	0000	0	
01-0000-77	0000	0000	0	
01-0000-78	0000	0000	0	
01-0000-79	0000	0000	0	
01-0000-80	0000	0000	0	
01-0000-81	0000	0000	0	
01-0000-82	0000	0000	0	
01-0000-83	0000	0000	0	
01-0000-84	0000	0000	0	
01-0000-85	0000	0000	0	
01-0000-86	0000	0000	0	
01-0000-87	0000	0000	0	
01-0000-88	0000	0000	0	
01-0000-89	0000	0000	0	
01-0000-90	0000	0000	0	
01-0000-91	0000	0000	0	
01-0000-92	0000	0000	0	
01-0000-93	0000	0000	0	
01-0000-94	0000	0000	0	
01-0000-95	0000	0000	0	
01-0000-96	0000	0000	0	
01-0000-97	0000	0000	0	
01-0000-98	0000	0000	0	
01-0000-99	0000	0000	0	
01-0000-100	0000	0000	0	

Date	Contributor / Depositor (Name last)	Contributor / Operation (amt)	Product(s)?	Comment
2/14/2014 4:00	1000	1000	Y	
2/14/2014 7:30	1000	1000	Y	
2/14/2014 8:00	1000	1000	Y	
2/14/2014 8:30	1000	1000	Y	
2/14/2014 8:45	1000	1000	Y	
2/14/2014 11:00	1000	1000	Y	
2/14/2014 12:00	1000	1000	Y	
2/14/2014 13:00	1000	1000	Y	
2/14/2014 14:00	1000	1000	Y	
2/14/2014 15:00	1000	1000	Y	
2/14/2014 16:00	1000	1000	Y	
2/14/2014 17:00	1000	1000	Y	
2/14/2014 18:00	1000	1000	Y	
2/14/2014 19:00	1000	1000	Y	
2/14/2014 20:00	1000	1000	Y	
2/14/2014 21:00	1000	1000	Y	
2/14/2014 22:00	1000	1000	Y	
2/14/2014 23:00	1000	1000	Y	
2/14/2014 24:00	1000	1000	Y	
2/14/2014 25:00	1000	1000	Y	
2/14/2014 26:00	1000	1000	Y	
2/14/2014 27:00	1000	1000	Y	
2/14/2014 28:00	1000	1000	Y	
2/14/2014 29:00	1000	1000	Y	
2/14/2014 30:00	1000	1000	Y	
2/14/2014 31:00	1000	1000	Y	
2/14/2014 32:00	1000	1000	Y	
2/14/2014 33:00	1000	1000	Y	
2/14/2014 34:00	1000	1000	Y	
2/14/2014 35:00	1000	1000	Y	
2/14/2014 36:00	1000	1000	Y	
2/14/2014 37:00	1000	1000	Y	
2/14/2014 38:00	1000	1000	Y	
2/14/2014 39:00	1000	1000	Y	
2/14/2014 40:00	1000	1000	Y	
2/14/2014 41:00	1000	1000	Y	
2/14/2014 42:00	1000	1000	Y	
2/14/2014 43:00	1000	1000	Y	
2/14/2014 44:00	1000	1000	Y	
2/14/2014 45:00	1000	1000	Y	
2/14/2014 46:00	1000	1000	Y	
2/14/2014 47:00	1000	1000	Y	
2/14/2014 48:00	1000	1000	Y	
2/14/2014 49:00	1000	1000	Y	
2/14/2014 50:00	1000	1000	Y	
2/14/2014 51:00	1000	1000	Y	
2/14/2014 52:00	1000	1000	Y	
2/14/2014 53:00	1000	1000	Y	
2/14/2014 54:00	1000	1000	Y	
2/14/2014 55:00	1000	1000	Y	
2/14/2014 56:00	1000	1000	Y	
2/14/2014 57:00	1000	1000	Y	
2/14/2014 58:00	1000	1000	Y	
2/14/2014 59:00	1000	1000	Y	
2/14/2014 60:00	1000	1000	Y	
2/14/2014 61:00	1000	1000	Y	
2/14/2014 62:00	1000	1000	Y	
2/14/2014 63:00	1000	1000	Y	
2/14/2014 64:00	1000	1000	Y	
2/14/2014 65:00	1000	1000	Y	
2/14/2014 66:00	1000	1000	Y	
2/14/2014 67:00	1000	1000	Y	
2/14/2014 68:00	1000	1000	Y	
2/14/2014 69:00	1000	1000	Y	
2/14/2014 70:00	1000	1000	Y	
2/14/2014 71:00	1000	1000	Y	
2/14/2014 72:00	1000	1000	Y	
2/14/2014 73:00	1000	1000	Y	
2/14/2014 74:00	1000	1000	Y	
2/14/2014 75:00	1000	1000	Y	
2/14/2014 76:00	1000	1000	Y	
2/14/2014 77:00	1000	1000	Y	
2/14/2014 78:00	1000	1000	Y	
2/14/2014 79:00	1000	1000	Y	
2/14/2014 80:00	1000	1000	Y	
2/14/2014 81:00	1000	1000	Y	

[illegible]

Time	Conductor / Operator Year (yr)	Conductor / Operator Time (yr)	Production?	Comment
1/1/2018 11:00	2018	0	Y	
1/1/2018 12:00	2018	0	Y	
1/1/2018 13:00	2018	0	Y	
1/1/2018 14:00	2018	0	Y	
1/1/2018 15:00	2018	0	Y	
1/1/2018 16:00	2018	0	Y	
1/1/2018 17:00	2018	0	Y	
1/1/2018 18:00	2018	0	Y	
1/1/2018 19:00	2018	0	Y	
1/1/2018 20:00	2018	0	Y	
1/1/2018 21:00	2018	0	Y	
1/1/2018 22:00	2018	0	Y	
1/1/2018 23:00	2018	0	Y	
1/1/2018 24:00	2018	0	Y	
1/1/2018 25:00	2018	0	Y	
1/1/2018 26:00	2018	0	Y	
1/1/2018 27:00	2018	0	Y	
1/1/2018 28:00	2018	0	Y	
1/1/2018 29:00	2018	0	Y	
1/1/2018 30:00	2018	0	Y	
1/1/2018 31:00	2018	0	Y	
1/1/2018 32:00	2018	0	Y	
1/1/2018 33:00	2018	0	Y	
1/1/2018 34:00	2018	0	Y	
1/1/2018 35:00	2018	0	Y	
1/1/2018 36:00	2018	0	Y	
1/1/2018 37:00	2018	0	Y	
1/1/2018 38:00	2018	0	Y	
1/1/2018 39:00	2018	0	Y	
1/1/2018 40:00	2018	0	Y	
1/1/2018 41:00	2018	0	Y	
1/1/2018 42:00	2018	0	Y	
1/1/2018 43:00	2018	0	Y	
1/1/2018 44:00	2018	0	Y	
1/1/2018 45:00	2018	0	Y	
1/1/2018 46:00	2018	0	Y	
1/1/2018 47:00	2018	0	Y	
1/1/2018 48:00	2018	0	Y	
1/1/2018 49:00	2018	0	Y	
1/1/2018 50:00	2018	0	Y	
1/1/2018 51:00	2018	0	Y	
1/1/2018 52:00	2018	0	Y	
1/1/2018 53:00	2018	0	Y	
1/1/2018 54:00	2018	0	Y	
1/1/2018 55:00	2018	0	Y	
1/1/2018 56:00	2018	0	Y	
1/1/2018 57:00	2018	0	Y	
1/1/2018 58:00	2018	0	Y	
1/1/2018 59:00	2018	0	Y	
1/1/2018 60:00	2018	0	Y	
1/1/2018 61:00	2018	0	Y	
1/1/2018 62:00	2018	0	Y	
1/1/2018 63:00	2018	0	Y	
1/1/2018 64:00	2018	0	Y	
1/1/2018 65:00	2018	0	Y	
1/1/2018 66:00	2018	0	Y	
1/1/2018 67:00	2018	0	Y	
1/1/2018 68:00	2018	0	Y	
1/1/2018 69:00	2018	0	Y	
1/1/2018 70:00	2018	0	Y	
1/1/2018 71:00	2018	0	Y	
1/1/2018 72:00	2018	0	Y	
1/1/2018 73:00	2018	0	Y	
1/1/2018 74:00	2018	0	Y	
1/1/2018 75:00	2018	0	Y	
1/1/2018 76:00	2018	0	Y	
1/1/2018 77:00	2018	0	Y	
1/1/2018 78:00	2018	0	Y	
1/1/2018 79:00	2018	0	Y	
1/1/2018 80:00	2018	0	Y	
1/1/2018 81:00	2018	0	Y	
1/1/2018 82:00	2018	0	Y	
1/1/2018 83:00	2018	0	Y	
1/1/2018 84:00	2018	0	Y	
1/1/2018 85:00	2018	0	Y	
1/1/2018 86:00	2018	0	Y	
1/1/2018 87:00	2018	0	Y	
1/1/2018 88:00	2018	0	Y	
1/1/2018 89:00	2018	0	Y	
1/1/2018 90:00	2018	0	Y	
1/1/2018 91:00	2018	0	Y	
1/1/2018 92:00	2018	0	Y	
1/1/20				

[illegible]

[illegible]

Bar	Cardboard 1 Operation	Cardboard 2 Operation	Production?	Comment
	Time (sec)	Time (sec)		
3.1.1981 1.40	200	200	F	
3.1.1981 1.50	200	200	F	
3.1.1981 2.00	200	200	F	
3.1.1981 2.10	200	200	F	
3.1.1981 2.20	200	200	F	
3.1.1981 2.30	200	200	F	
3.1.1981 2.40	200	200	F	
3.1.1981 2.50	200	200	F	
3.1.1981 3.00	200	200	F	
3.1.1981 3.10	200	200	F	
3.1.1981 3.20	200	200	F	
3.1.1981 3.30	200	200	F	
3.1.1981 3.40	200	200	F	
3.1.1981 3.50	200	200	F	
3.1.1981 4.00	200	200	F	
3.1.1981 4.10	200	200	F	
3.1.1981 4.20	200	200	F	
3.1.1981 4.30	200	200	F	
3.1.1981 4.40	200	200	F	
3.1.1981 4.50	200	200	F	
3.1.1981 5.00	200	200	F	
3.1.1981 5.10	200	200	F	
3.1.1981 5.20	200	200	F	
3.1.1981 5.30	200	200	F	
3.1.1981 5.40	200	200	F	
3.1.1981 5.50	200	200	F	
3.1.1981 6.00	200	200	F	
3.1.1981 6.10	200	200	F	
3.1.1981 6.20	200	200	F	
3.1.1981 6.30	200	200	F	
3.1.1981 6.40	200	200	F	
3.1.1981 6.50	200	200	F	
3.1.1981 7.00	200	200	F	
3.1.1981 7.10	200	200	F	
3.1.1981 7.20	200	200	F	
3.1.1981 7.30	200	200	F	
3.1.1981 7.40	200	200	F	
3.1.1981 7.50	200	200	F	
3.1.1981 8.00	200	200	F	
3.1.1981 8.10	200	200	F	
3.1.1981 8.20	200	200	F	
3.1.1981 8.30	200	200	F	
3.1.1981 8.40	200	200	F	
3.1.1981 8.50	200	200	F	
3.1.1981 9.00	200	200	F	
3.1.1981 9.10	200	200	F	
3.1.1981 9.20	200	200	F	
3.1.1981 9.30	200	200	F	
3.1.1981 9.40	200	200	F	
3.1.1981 9.50	200	200	F	
3.1.1981 10.00	200	200	F	
3.1.1981 10.10	200	200	F	
3.1.1981 10.20	200	200	F	
3.1.1981 10.30	200	200	F	
3.1.1981 10.40	200	200	F	
3.1.1981 10.50	200	200	F	
3.1.1981 11.00	200	200	F	
3.1.1981 11.10	200	200	F	
3.1.1981 11.20	200	200	F	
3.1.1981 11.30	200	200	F	
3.1.1981 11.40	200	200	F	
3.1.1981 11.50	200	200	F	
3.1.1981 12.00	200	200	F	
3.1.1981 12.10	200	200	F	
3.1.1981 12.20	200	200	F	
3.1.1981 12.30	200	200	F	
3.1.1981 12.40	200	200	F	
3.1.1981 12.50	200	200	F	
3.1.1981 13.00	200	200	F	
3.1.1981 13.10	200	200	F	
3.1.1981 13.20	200	200	F	
3.1.1981 13.30	200	200	F	
3.1.1981 13.40	200	200	F	
3.1.1981 13.50	200	200	F	
3.1.1981 14.00	200	200	F	
3.1.1981 14.10	200	200	F	
3.1.1981 14.20	200	200	F	
3.1.1981 14.30	200	200	F	
3.1.1981 14.40	200	200	F	
3.1.1981 14.50	200	200	F	
3.1.1981 15.00	200	200	F	
3.1.1981 15.10	200	200	F	
3.1.1981 15.20	200	200		

Date	Conductor / Deposition	Conductor / Operation Time	Household	Comment
	New (sec)	(sec)		
6/25/2018 20:00			N	
6/25/2018 21:00			N	
6/25/2018 22:00			N	
6/25/2018 23:00			N	
6/26/2018 00:00			N	
6/26/2018 01:00			N	
6/26/2018 02:00			N	
6/26/2018 03:00			N	
6/26/2018 04:00			N	
6/26/2018 05:00			N	
6/26/2018 06:00			N	
6/26/2018 07:00			N	
6/26/2018 08:00			N	
6/26/2018 09:00			N	
6/26/2018 10:00			N	
6/26/2018 11:00			N	
6/26/2018 12:00			N	
6/26/2018 13:00			N	
6/26/2018 14:00			N	
6/26/2018 15:00			N	
6/26/2018 16:00			N	
6/26/2018 17:00			N	
6/26/2018 18:00			N	
6/26/2018 19:00			N	
6/26/2018 20:00			N	
6/26/2018 21:00			N	
6/26/2018 22:00			N	
6/26/2018 23:00			N	
6/27/2018 00:00			N	
6/27/2018 01:00			N	
6/27/2018 02:00			N	
6/27/2018 03:00			N	
6/27/2018 04:00			N	
6/27/2018 05:00			N	
6/27/2018 06:00			N	
6/27/2018 07:00			N	
6/27/2018 08:00			N	
6/27/2018 09:00			N	
6/27/2018 10:00			N	
6/27/2018 11:00			N	
6/27/2018 12:00			N	
6/27/2018 13:00			N	
6/27/2018 14:00			N	
6/27/2018 15:00			N	
6/27/2018 16:00			N	
6/27/2018 17:00			N	
6/27/2018 18:00			N	
6/27/2018 19:00			N	
6/27/2018 20:00			N	
6/27/2018 21:00			N	
6/27/2018 22:00			N	
6/27/2018 23:00			N	
6/28/2018 00:00			N	
6/28/2018 01:00			N	
6/28/2018 02:00			N	
6/28/2018 03:00			N	
6/28/2018 04:00			N	
6/28/2018 05:00			N	
6/28/2018 06:00			N	
6/28/2018 07:00			N	
6/28/2018 08:00			N	
6/28/2018 09:00			N	
6/28/2018 10:00			N	
6/28/2018 11:00			N	
6/28/2018 12:00			N	
6/28/2018 13:00			N	
6/28/2018 14:00			N	
6/28/2018 15:00			N	
6/28/2018 16:00			N	
6/28/2018 17:00			N	
6/28/2018 18:00			N	
6/28/2018 19:00			N	
6/28/2018 20:00			N	
6/28/2018 21:00			N	
6/28/2018 22:00			N	
6/28/2018 23:00			N	
6/29/2018 00:00			N	
6/29/2018 01:00			N	
6/29/2018 02:00			N	
6/29/2018 03:00			N	
6/29/2018 04:00			N	
6/29/2018 05:00			N	
6/29/2018 06:00			N	
6/29/2018 07:00			N	
6/29/2018 08:00			N	
6/29/2018 09:00			N	
6/29/2018 10:00			N	
6/29/2018 11:00			N	
6/29/2018 12:00			N	
6/29/2018 13:00			N	
6/29/2018 14:00			N	
6/29/2018 15:00			N	
6/29/2018 16:00			N	
6/29/2018 17:00			N	
6/29/2018 18:00			N	
6/29/2018 1				

Date	Combinator 1 Occupation		Combinator 2 Occupation Time		Product/Unit	Comment
	Time used	Unit	Time	Unit		
6/2/2018 6:00	2500		2500		F	
6/2/2018 7:00	2500		2500		F	
6/2/2018 8:00	2500		2500		F	
6/2/2018 9:00	2500		2500		F	
6/2/2018 10:00	2500		2500		F	
6/2/2018 11:00	2500		2500		F	
6/2/2018 12:00	2500		2500		F	
6/2/2018 13:00	2500		2500		F	
6/2/2018 14:00	2500		2500		F	
6/2/2018 15:00	2500		2500		F	
6/2/2018 16:00	2500		2500		F	
6/2/2018 17:00	2500		2500		F	
6/2/2018 18:00	2500		2500		F	
6/2/2018 19:00	2500		2500		F	
6/2/2018 20:00	2500		2500		F	
6/2/2018 21:00	2500		2500		F	
6/2/2018 22:00	2500		2500		F	
6/2/2018 23:00	2500		2500		F	
6/2/2018 24:00	2500		2500		F	
6/2/2018 25:00	2500		2500		F	
6/2/2018 26:00	2500		2500		F	
6/2/2018 27:00	2500		2500		F	
6/2/2018 28:00	2500		2500		F	
6/2/2018 29:00	2500		2500		F	
6/2/2018 30:00	2500		2500		F	
6/2/2018 31:00	2500		2500		F	
6/2/2018 32:00	2500		2500		F	
6/2/2018 33:00	2500		2500		F	
6/2/2018 34:00	2500		2500		F	
6/2/2018 35:00	2500		2500		F	
6/2/2018 36:00	2500		2500		F	
6/2/2018 37:00	2500		2500		F	
6/2/2018 38:00	2500		2500		F	
6/2/2018 39:00	2500		2500		F	
6/2/2018 40:00	2500		2500		F	
6/2/2018 41:00	2500		2500		F	
6/2/2018 42:00	2500		2500		F	
6/2/2018 43:00	2500		2500		F	
6/2/2018 44:00	2500		2500		F	
6/2/2018 45:00	2500		2500		F	
6/2/2018 46:00	2500		2500		F	
6/2/2018 47:00	2500		2500		F	
6/2/2018 48:00	2500		2500		F	
6/2/2018 49:00	2500		2500		F	
6/2/2018 50:00	2500		2500		F	
6/2/2018 51:00	2500		2500		F	
6/2/2018 52:00	2500		2500		F	
6/2/2018 53:00	2500		2500		F	
6/2/2018 54:00	2500		2500		F	
6/2/2018 55:00	2500		2500		F	
6/2/2018 56:00	2500		2500		F	
6/2/2018 57:00	2500		2500		F	
6/2/2018 58:00	2500		2500		F	
6/2/2018 59:00	2500		2500		F	
6/2/2018 60:00	2500		2500		F	
6/2/2018 61:00	2500		2500		F	
6/2/2018 62:00	2500		2500		F	
6/2/2018 63:00	2500		2500		F	
6/2/2018 64:00	2500		2500		F	
6/2/2018 65:00	2500		2500		F	
6/2/2018 66:00	2500		2500		F	
6/2/2018 67:00	2500		2500		F	
6/2/2018 68:00	2500		2500		F	
6/2/2018 69:00	2500		2500		F	
6/2/2018 70:00	2500		2500		F	
6/2/2018 71:00	2500		2500		F	
6/2/2018 72:00	2500		2500		F	
6/2/2018 73:00	2500					

DATE	Constructor 1 (Operator Time Unit)	Constructor 2 (Operator Time Unit)	Production/	Comments
4/26/2018 14:00	9000	9000	Y	
4/26/2018 17:00	9000	9000	Y	
4/26/2018 14:00	9000	9000	Y	
4/26/2018 19:00	9000	9000	Y	
4/26/2018 2:00	9000	9000	Y	
4/26/2018 21:00	9000	9000	Y	
4/26/2018 22:00	9000	9000	Y	
4/26/2018 21:00	9000	9000	Y	
4/26/2018 23:00	9000	9000	Y	
4/26/2018 1:00	9000	9000	Y	
4/26/2018 1:00	9000	9000	Y	
4/26/2018 2:00	9000	9000	Y	
4/26/2018 3:00	9000	9000	Y	
4/26/2018 4:00	9000	9000	Y	
4/26/2018 5:00	9000	9000	Y	
4/26/2018 6:00	9000	9000	Y	
4/26/2018 7:00	9000	9000	Y	
4/26/2018 8:00	9000	9000	Y	
4/26/2018 9:00	9000	9000	Y	
4/26/2018 10:00	9000	9000	Y	
4/26/2018 11:00	9000	9000	Y	
4/26/2018 12:00	9000	9000	Y	
4/26/2018 13:00	9000	9000	Y	
4/26/2018 14:00	9000	9000	Y	
4/26/2018 15:00	9000	9000	Y	
4/26/2018 16:00	9000	9000	Y	
4/26/2018 17:00	9000	9000	Y	
4/26/2018 18:00	9000	9000	Y	
4/26/2018 19:00	9000	9000	Y	
4/26/2018 20:00	9000	9000	Y	
4/26/2018 21:00	9000	9000	Y	
4/26/2018 22:00	9000	9000	Y	
4/26/2018 23:00	9000	9000	Y	
4/26/2018 24:00	9000	9000	Y	
4/26/2018 1:00	9000	9000	Y	
4/26/2018 2:00	9000	9000	Y	
4/26/2018 3:00	9000	9000	Y	
4/26/2018 4:00	9000	9000	Y	
4/26/2018 5:00	9000	9000	Y	
4/26/2018 6:00	9000	9000	Y	
4/26/2018 7:00	9000	9000	Y	
4/26/2018 8:00	9000	9000	Y	
4/26/2018 9:00	9000	9000	Y	
4/26/2018 10:00	9000	9000	Y	
4/26/2018 11:00	9000	9000	Y	
4/26/2018 12:00	9000	9000	Y	
4/26/2018 13:00	9000	9000	Y	
4/26/2018 14:00	9000	9000	Y	
4/26/2018 15:00	9000	9000	Y	
4/26/2018 16:00	9000	9000	Y	
4/26/2018 17:00	9000	9000	Y	
4/26/2018 18:00	9000	9000	Y	
4/26/2018 19:00	9000	9000	Y	
4/26/2018 20:00	9000	9000	Y	
4/26/2018 21:00	9000	9000	Y	
4/26/2018 22:00	9000	9000	Y	
4/26/2018 23:00	9000	9000	Y	
4/26/2018 24:00	9000	9000	Y	
4/26/2018 1:00	9000	9000	Y	
4/26/2018 2:00	9000	9000	Y	
4/26/2018 3:00	9000	9000	Y	
4/26/2018 4:00	9000	9000	Y	
4/26/2018 5:00	9000	9000	Y	
4/26/2018 6:00	9000	9000	Y	
4/26/2018 7:00	9000	9000	Y	
4/26/2018 8:00	9000	9000	Y	
4/26/2018 9:00	9000	9000	Y	
4/26/2018 10:00	9000	9000	Y	
4/26/2018 11:00	9000	9000	Y	
4/26/2018 12:00	9000	9000	Y	
4/26/2018 13:00	9000	9000	Y	
4/26/2018 14:00	9000	9000	Y	
4/26/2018 15:00	9000	9000	Y	
4/26/2018 16:00	9000	9000	Y	
4/26/2018 17:00	9000	9000	Y	
4/26/2018 18:00	9000	9000	Y	
4/26/2018 19:00	9000			

[illegible]

LEBAR 15-34-09 A P&D

Date	Combustion 1 Capabilities (Base Year)	Combustion 2 Capabilities (Base Year)	Combustion 3 Capabilities (Base Year)	Production/Use	Comments
4/1/2014 12:00	2010	2010	2010	Y	
4/1/2014 13:00	2010	2010	2010	Y	
4/1/2014 14:00	2010	2010	2010	Y	
4/1/2014 15:00	2010	2010	2010	Y	
4/1/2014 16:00	2010	2010	2010	Y	
4/1/2014 17:00	2010	2010	2010	Y	
4/1/2014 18:00	2010	2010	2010	Y	
4/1/2014 19:00	2010	2010	2010	Y	
4/1/2014 20:00	2010	2010	2010	Y	
4/1/2014 21:00	2010	2010	2010	Y	
4/1/2014 22:00	2010	2010	2010	Y	
4/1/2014 23:00	2010	2010	2010	Y	
4/1/2014 24:00	2010	2010	2010	Y	
4/1/2014 25:00	2010	2010	2010	Y	
4/1/2014 26:00	2010	2010	2010	Y	
4/1/2014 27:00	2010	2010	2010	Y	
4/1/2014 28:00	2010	2010	2010	Y	
4/1/2014 29:00	2010	2010	2010	Y	
4/1/2014 30:00	2010	2010	2010	Y	
4/1/2014 31:00	2010	2010	2010	Y	
4/1/2014 32:00	2010	2010	2010	Y	
4/1/2014 33:00	2010	2010	2010	Y	
4/1/2014 34:00	2010	2010	2010	Y	
4/1/2014 35:00	2010	2010	2010	Y	
4/1/2014 36:00	2010	2010	2010	Y	
4/1/2014 37:00	2010	2010	2010	Y	
4/1/2014 38:00	2010	2010	2010	Y	
4/1/2014 39:00	2010	2010	2010	Y	
4/1/2014 40:00	2010	2010	2010	Y	
4/1/2014 41:00	2010	2010	2010	Y	
4/1/2014 42:00	2010	2010	2010	Y	
4/1/2014 43:00	2010	2010	2010	Y	
4/1/2014 44:00	2010	2010	2010	Y	
4/1/2014 45:00	2010	2010	2010	Y	
4/1/2014 46:00	2010	2010	2010	Y	
4/1/2014 47:00	2010	2010	2010	Y	
4/1/2014 48:00	2010	2010	2010	Y	
4/1/2014 49:00	2010	2010	2010	Y	
4/1/2014 50:00	2010	2010	2010	Y	
4/1/2014 51:00	2010	2010	2010	Y	
4/1/2014 52:00	2010	2010	2010	Y	
4/1/2014 53:00	2010	2010	2010	Y	
4/1/2014 54:00	2010	2010	2010	Y	
4/1/2014 55:00	2010	2010	2010	Y	
4/1/2014 56:00	2010	2010	2010	Y	
4/1/2014 57:00	2010	2010	2010	Y	
4/1/2014 58:00	2010	2010	2010	Y	
4/1/2014 59:00	2010	2010	2010	Y	
4/1/2014 60:00	2010	2010	2010	Y	
4/1/2014 61:00	2010	2010	2010	Y	
4/1/2014 62:00	2010	2010	2010	Y	
4/1/2014 63:00	2010	2010	2010	Y	
4/1/2014 64:00	2010	2010	2010	Y	
4/1/2014 65:00	2010	2010	2010	Y	
4/1/2014 66:00	2010	2010	2010	Y	
4/1/2014 67:00	2010	2010	2010	Y	
4/1/2014 68:00	2010	2010	2010	Y	
4/1/2014 69:00	2010	2010	2010	Y	
4/1/2014 70:00	2010	2010	2010	Y	
4/1/2014 71:00	2010	2010	2010	Y	
4/1/2014 72:00	2010	2010	2010	Y	
4/1/2014 73:00	2010	2010	2010	Y	
4/1/2014 74:00	2010	2010	2010	Y	
4/1/2014 75:00	2010	2010	2010	Y	
4/1/2014 76:00	2010	2010	2010	Y	
4/1/2014 77:00	2010	2010	2010	Y	
4/1/2014 78:00	2010	2010	2010	Y	
4/1/2014 79:00	2010	2010	2010	Y	
4/1/2014 80:00	2010	2010	2010	Y	
4/1/2014 81:00	2010	2010	2010	Y	
4/1/2014 82:00	2010	2010	2010	Y	
4/1/2014 83:00	2010	2010	2010	Y	
4/1/2014 84:00	2010	2010	2010	Y	
4/1/2014 85:00	2010	2010	2010	Y	
4/1/2014 86:00	2010	2010	2010	Y	
4/1/2014 87:00	2010	2010	2010	Y	
4/1/2014 88:00	2010	2010	2010	Y	
4/1/2014 89:00	2010	2010	2010	Y	
4/1/2014 90:00	2010	2010	2010	Y	
4/1/2014 91:00	2010	2010	2010	Y	
4/1/2014 92:00	2010	2010	2010	Y	
4/1/2014 93:00	2010	2010	2010	Y	
4/1/2014 94:00	2010	2010	2010	Y	
4/1/2014 95:00	2010	2010	2010	Y	
4/1/2014 96:00	2010	2010	2010	Y	
4/1/2014 97:00	2010	2010	2010	Y	
4/1/2014 98:00	2010	2010	2010	Y	
4/1/2014 99:00	2010	2010	2010	Y	
4/1/2014 100:00	2010	2010	2010	Y	

LITERAR 15-34-60 A PAZ

Date	Computer 1 Operation Time (sec)	Computer 2 Operation Time (sec)	Productivity	Comment
6/21/2018 12:00	1000	1000	F	
6/21/2018 12:05	1000	1000	F	
6/21/2018 12:10	1000	1000	F	
6/21/2018 12:15	1000	1000	F	
6/21/2018 12:20	1000	1000	F	
6/21/2018 12:25	1000	1000	F	
6/21/2018 12:30	1000	1000	F	
6/21/2018 12:35	1000	1000	F	
6/21/2018 12:40	1000	1000	F	
6/21/2018 12:45	1000	1000	F	
6/21/2018 12:50	1000	1000	F	
6/21/2018 12:55	1000	1000	F	
6/22/2018 1:00	1000	1000	F	
6/22/2018 1:05	1000	1000	F	
6/22/2018 1:10	1000	1000	F	
6/22/2018 1:15	1000	1000	F	
6/22/2018 1:20	1000	1000	F	
6/22/2018 1:25	1000	1000	F	
6/22/2018 1:30	1000	1000	F	
6/22/2018 1:35	1000	1000	F	
6/22/2018 1:40	1000	1000	F	
6/22/2018 1:45	1000	1000	F	
6/22/2018 1:50	1000	1000	F	
6/22/2018 1:55	1000	1000	F	
6/23/2018 2:00	1000	1000	F	
6/23/2018 2:05	1000	1000	F	
6/23/2018 2:10	1000	1000	F	
6/23/2018 2:15	1000	1000	F	
6/23/2018 2:20	1000	1000	F	
6/23/2018 2:25	1000	1000	F	
6/23/2018 2:30	1000	1000	F	
6/23/2018 2:35	1000	1000	F	
6/23/2018 2:40	1000	1000	F	
6/23/2018 2:45	1000	1000	F	
6/23/2018 2:50	1000	1000	F	
6/23/2018 2:55	1000	1000	F	
6/24/2018 3:00	1000	1000	F	
6/24/2018 3:05	1000	1000	F	
6/24/2018 3:10	1000	1000	F	
6/24/2018 3:15	1000	1000	F	
6/24/2018 3:20	1000	1000	F	
6/24/2018 3:25	1000	1000	F	
6/24/2018 3:30	1000	1000	F	
6/24/2018 3:35	1000	1000	F	
6/24/2018 3:40	1000	1000	F	
6/24/2018 3:45	1000	1000	F	
6/24/2018 3:50	1000	1000	F	
6/24/2018 3:55	1000	1000	F	
6/25/2018 4:00	1000	1000	F	
6/25/2018 4:05	1000	1000	F	
6/25/2018 4:10	1000	1000	F	
6/25/2018 4:15	1000	1000	F	
6/25/2018 4:20	1000	1000	F	
6/25/2018 4:25	1000	1000	F	
6/25/2018 4:30	1000	1000	F	
6/25/2018 4:35	1000	1000	F	
6/25/2018 4:40	1000	1000	F	
6/25/2018 4:45	1000	1000	F	
6/25/2018 4:50	1000	1000	F	
6/25/2018 4:55	1000	1000	F	
6/26/2018 5:00	1000	1000	F	
6/26/2018 5:05	1000	1000	F	
6/26/2018 5:10	1000	1000	F	
6/26/2018 5:15	1000	1000	F	
6/26/2018 5:20	1000	1000	F	
6/26/2018 5:25	1000	1000	F	
6/26/2018 5:30	1000	1000	F	
6/26/2018 5:35	1000	1000	F	
6/26/2018 5:40	1000	1000	F	
6/26/2018 5:45	1000	1000	F	
6/26/2018 5:50	1000	1000	F	
6/26/2018 5:55	1000	1000	F	
6/27/2018 6:00	1000	1000	F	
6/27/2018 6:05	1000	1000	F	
6/27/2018 6:10	1000	1000	F	
6/27/2018 6:15	1000	1000	F	
6/27/2018 6:20	1000	1000	F	
6/27/2018 6:25	1000	1000	F	
6/27/2018 6:30	1000	1000	F	
6/27/2018 6:35	1000	1000	F	
6/27/2018 6:40	1000	1000	F	
6/27/2018 6:45	1000	1000	F	
6/27/2018 6:50	1000	1000	F	
6/27/2018 6:55	1000	1000	F	
6/28/2018 7:00	1000	1000	F	
6/28/2018 7:05	1000	1000	F	
6/28/2018 7:10	1000	1000	F	
6/28/2018 7:15	1000	1000	F	
6/28/2018 7:20	1000	1000	F	
6/28/2018 7:25	1000	1000	F	
6/28/2018 7:30	1000	1000	F	
6/28/2018 7:35	1000	1000	F	
6/28/2018 7:40	1000	1000	F	
6/28/2018 7:45	1000	1000	F	
6/28/2018 7:50	1000	1000	F	
6/28/2018 7:55	1000	1000	F	
6/29/2018 8:00	1000	1000	F	
6/29/2018 8:05	1000	1000	F	
6/29/2018 8:10	1000	1000	F	
6/29/2018 8:15	1000	1000	F	
6/29/2018 8:20	1000	1000	F	
6/29/2018 8:25	1000	1000	F	
6/29/2018 8:30	1000	1000	F	
6/29/2018 8:35	1000	1000	F	
6/29/2018 8:40	1000	1000	F	
6/29/2018 8:45	1000	1000	F	
6/29/2018 8:50	1000	1000	F	
6/29/2018 8:55	1000	1000	F	
6/30/2018 9:00	1000	1000	F	

Date	Contributor 1 (Donor Name)	Contributor 2 (Donor Name)	Product(s)	Comment
4/26/2018 8:00	2000	2000	Y	
4/26/2018 9:00	2000	2000	Y	
4/26/2018 10:00	2000	2000	Y	
4/26/2018 11:00	2000	2000	Y	
4/26/2018 12:00	2000	2000	Y	
4/26/2018 13:00	2000	2000	Y	
4/26/2018 14:00	2000	2000	Y	
4/26/2018 15:00	2000	2000	Y	
4/26/2018 16:00	2000	2000	Y	
4/26/2018 17:00	2000	2000	Y	
4/26/2018 18:00	2000	2000	Y	
4/26/2018 19:00	2000	2000	Y	
4/26/2018 20:00	2000	2000	Y	
4/26/2018 21:00	2000	2000	Y	
4/26/2018 22:00	2000	2000	Y	
4/26/2018 23:00	2000	2000	Y	
4/27/2018 0:00	2000	2000	Y	
4/27/2018 1:00	2000	2000	Y	
4/27/2018 2:00	2000	2000	Y	
4/27/2018 3:00	2000	2000	Y	
4/27/2018 4:00	2000	2000	Y	
4/27/2018 5:00	2000	2000	Y	
4/27/2018 6:00	2000	2000	Y	
4/27/2018 7:00	2000	2000	Y	
4/27/2018 8:00	2000	2000	Y	
4/27/2018 9:00	2000	2000	Y	
4/27/2018 10:00	2000	2000	Y	
4/27/2018 11:00	2000	2000	Y	
4/27/2018 12:00	2000	2000	Y	
4/27/2018 13:00	2000	2000	Y	
4/27/2018 14:00	2000	2000	Y	
4/27/2018 15:00	2000	2000	Y	
4/27/2018 16:00	2000	2000	Y	
4/27/2018 17:00	2000	2000	Y	
4/27/2018 18:00	2000	2000	Y	
4/27/2018 19:00	2000	2000	Y	
4/27/2018 20:00	2000	2000	Y	
4/27/2018 21:00	2000	2000	Y	
4/27/2018 22:00	2000	2000	Y	
4/27/2018 23:00	2000	2000	Y	
4/28/2018 0:00	2000	2000	Y	
4/28/2018 1:00	2000	2000	Y	
4/28/2018 2:00	2000	2000	Y	
4/28/2018 3:00	2000	2000	Y	
4/28/2018 4:00	2000	2000	Y	
4/28/2018 5:00	2000	2000	Y	
4/28/2018 6:00	2000	2000	Y	
4/28/2018 7:00	2000	2000	Y	
4/28/2018 8:00	2000	2000	Y	
4/28/2018 9:00	2000	2000	Y	
4/28/2018 10:00	2000	2000	Y	
4/28/2018 11:00	2000	2000	Y	
4/28/2018 12:00	2000	2000	Y	
4/28/2018 13:00	2000	2000	Y	
4/28/2018 14:00	2000	2000	Y	
4/28/2018 15:00	2000	2000	Y	
4/28/2018 16:00	2000	2000	Y	
4/28/2018 17:00	2000	2000	Y	
4/28/2018 18:00	2000	2000	Y	
4/28/2018 19:00	2000	2000	Y	
4/28/2018 20:00	2000	2000	Y	
4/28/2018 21:00	2000	2000	Y	
4/28/2018 22:00	2000	2000	Y	
4/28/2018 23:00	2000	2000	Y	
4/29/2018 0:00	2000	2000	Y	
4/29/2018 1:00	2000	2000	Y	
4/29/2018 2:00	2000	2000	Y	
4/29/2018 3:00	2000	2000	Y	
4/29/2018 4:00	2000	2000	Y	
4/29/2018 5:00	2000	2000	Y	
4/29/2018 6:00	2000	2000	Y	
4/29/2018 7:00	2000	2000	Y	
4/29/2018 8:00	2000	2000	Y	
4/29/2018 9:00	2000	2000	Y	
4/29/2018 10:00	2000	2000	Y	
4/29/2018 11:00	2000	2000	Y	
4/29/2018 12:00	2000	2		

[illegible]

[illegible][illegible]

LFBAR 15-34-69 A P40

Date	Constructor 1 Operator (New Line)	Constructor 2 Operator (New Line)	Price/Unit	Comment
6/2/2018 19:00	PRV	PRV	Y	
6/2/2018 19:05	PRV	PRV	Y	
6/2/2018 19:10	PRV	PRV	Y	
6/2/2018 19:15	PRV	PRV	Y	
6/2/2018 19:20	PRV	PRV	Y	
6/2/2018 19:25	PRV	PRV	Y	
6/2/2018 19:30	PRV	PRV	Y	
6/2/2018 19:35	PRV	PRV	Y	
6/2/2018 19:40	PRV	PRV	Y	
6/2/2018 19:45	PRV	PRV	Y	
6/2/2018 19:50	PRV	PRV	Y	
6/2/2018 19:55	PRV	PRV	Y	
6/2/2018 20:00	PRV	PRV	Y	
6/2/2018 20:05	PRV	PRV	Y	
6/2/2018 20:10	PRV	PRV	Y	
6/2/2018 20:15	PRV	PRV	Y	
6/2/2018 20:20	PRV	PRV	Y	
6/2/2018 20:25	PRV	PRV	Y	
6/2/2018 20:30	PRV	PRV	Y	
6/2/2018 20:35	PRV	PRV	Y	
6/2/2018 20:40	PRV	PRV	Y	
6/2/2018 20:45	PRV	PRV	Y	
6/2/2018 20:50	PRV	PRV	Y	
6/2/2018 20:55	PRV	PRV	Y	
6/2/2018 21:00	PRV	PRV	Y	
6/2/2018 21:05	PRV	PRV	Y	
6/2/2018 21:10	PRV	PRV	Y	
6/2/2018 21:15	PRV	PRV	Y	
6/2/2018 21:20	PRV	PRV	Y	
6/2/2018 21:25	PRV	PRV	Y	
6/2/2018 21:30	PRV	PRV	Y	
6/2/2018 21:35	PRV	PRV	Y	
6/2/2018 21:40	PRV	PRV	Y	
6/2/2018 21:45	PRV	PRV	Y	
6/2/2018 21:50	PRV	PRV	Y	
6/2/2018 21:55	PRV	PRV	Y	
6/2/2018 22:00	PRV	PRV	Y	
6/2/2018 22:05	PRV	PRV	Y	
6/2/2018 22:10	PRV	PRV	Y	
6/2/2018 22:15	PRV	PRV	Y	
6/2/2018 22:20	PRV	PRV	Y	
6/2/2018 22:25	PRV	PRV	Y	
6/2/2018 22:30	PRV	PRV	Y	
6/2/2018 22:35	PRV	PRV	Y	
6/2/2018 22:40	PRV	PRV	Y	
6/2/2018 22:45	PRV	PRV	Y	
6/2/2018 22:50	PRV	PRV	Y	
6/2/2018 22:55	PRV	PRV	Y	
6/2/2018 23:00	PRV	PRV	Y	
6/2/2018 23:05	PRV	PRV	Y	
6/2/2018 23:10	PRV	PRV	Y	
6/2/2018 23:15	PRV	PRV	Y	
6/2/2018 23:20	PRV	PRV	Y	
6/2/2018 23:25	PRV	PRV	Y	
6/2/2018 23:30	PRV	PRV	Y	
6/2/2018 23:35	PRV	PRV	Y	
6/2/2018 23:40	PRV	PRV	Y	
6/2/2018 23:45	PRV	PRV	Y	
6/2/2018 23:50	PRV	PRV	Y	
6/2/2018 23:55	PRV	PRV	Y	
6/2/2018 24:00	PRV	PRV	Y	
6/2/2018 24:05	PRV	PRV	Y	
6/2/2018 24:10	PRV	PRV	Y	
6/2/2018 24:15	PRV	PRV	Y	
6/2/2018 24:20	PRV	PRV	Y	
6/2/2018 24:25	PRV	PRV	Y	
6/2/2018 24:30	PRV	PRV	Y	
6/2/2018 24:35	PRV	PRV	Y	
6/2/2018 24:40	PRV	PRV	Y	
6/2/2018 24:45	PRV	PRV	Y	
6/2/2018 24:50	PRV	PRV	Y	
6/2/2018 24:55	PRV	PRV	Y	
6/2/2018 25:00	PRV	PRV	Y	
6/2/2018 25:05	PRV	PRV	Y	
6/2/2018 25:10	PRV	PRV	Y	
6/2/2018 25:15	PRV	PRV	Y	
6/2/2018 25:20	PRV	PRV	Y	
6/2/2018 25:25	PRV	PRV	Y	
6/2/2018 25:30	PRV	PRV	Y	
6/2/2018 25:35	PRV	PRV	Y	
6/2/2018 25:40	PRV	PRV	Y	
6/2/2018 25:45	PRV	PRV	Y	
6/2/2018 25:50	PRV	PRV	Y	
6/2/2018 25:55	PRV	PRV	Y	</

LEBAR 15-24-09 A PAD

[illegible]

Date	Combinator (Depositor) Total (unit)	Combinator (Operator Time) Unit	Production	Comment
8/18/2018 8:00	2000	2000	Y	
8/18/2018 8:05	3000	3000	Y	
8/18/2018 8:10	4000	4000	Y	
8/18/2018 8:15	5000	5000	Y	
8/18/2018 8:20	6000	6000	Y	
8/18/2018 8:25	7000	7000	Y	
8/18/2018 8:30	8000	8000	Y	
8/18/2018 8:35	9000	9000	Y	
8/18/2018 8:40	10000	10000	Y	
8/18/2018 8:45	11000	11000	Y	
8/18/2018 8:50	12000	12000	Y	
8/18/2018 8:55	13000	13000	Y	
8/18/2018 9:00	14000	14000	Y	
8/18/2018 9:05	15000	15000	Y	
8/18/2018 9:10	16000	16000	Y	
8/18/2018 9:15	17000	17000	Y	
8/18/2018 9:20	18000	18000	Y	
8/18/2018 9:25	19000	19000	Y	
8/18/2018 9:30	20000	20000	Y	
8/18/2018 9:35	21000	21000	Y	
8/18/2018 9:40	22000	22000	Y	
8/18/2018 9:45	23000	23000	Y	
8/18/2018 9:50	24000	24000	Y	
8/18/2018 9:55	25000	25000	Y	
8/19/2018 8:00	26000	26000	Y	
8/19/2018 8:05	27000	27000	Y	
8/19/2018 8:10	28000	28000	Y	
8/19/2018 8:15	29000	29000	Y	
8/19/2018 8:20	30000	30000	Y	
8/19/2018 8:25	31000	31000	Y	
8/19/2018 8:30	32000	32000	Y	
8/19/2018 8:35	33000	33000	Y	
8/19/2018 8:40	34000	34000	Y	
8/19/2018 8:45	35000	35000	Y	
8/19/2018 8:50	36000	36000	Y	
8/19/2018 8:55	37000	37000	Y	
8/19/2018 9:00	38000	38000	Y	
8/19/2018 9:05	39000	39000	Y	
8/19/2018 9:10	40000	40000	Y	
8/19/2018 9:15	41000	41000	Y	
8/19/2018 9:20	42000	42000	Y	
8/19/2018 9:25	43000	43000	Y	
8/19/2018 9:30	44000	44000	Y	
8/19/2018 9:35	45000	45000	Y	
8/19/2018 9:40	46000	46000	Y	
8/19/2018 9:45	47000	47000	Y	
8/19/2018 9:50	48000	48000	Y	
8/19/2018 9:55	49000	49000	Y	
8/20/2018 8:00	50000	50000	Y	
8/20/2018 8:05	51000	51000	Y	
8/20/2018 8:10	52000	52000	Y	
8/20/2018 8:15	53000	53000	Y	
8/20/2018 8:20	54000	54000	Y	
8/20/2018 8:25	55000	55000	Y	
8/20/2018 8:30	56000	56000	Y	
8/20/2018 8:35	57000	57000	Y	
8/20/2018 8:40	58000	58000	Y	
8/20/2018 8:45	59000	59000	Y	
8/20/2018 8:50	60000	60000	Y	
8/20/2018 8:55	61000	61000	Y	
8/20/2018 9:00	62000	62000	Y	
8/20/2018 9:05	63000	63000	Y	
8/20/2018 9:10	64000	64000	Y	
8/20/2018 9:15	65000	65000	Y	
8/20/2018 9:20	66000	66000	Y	
8/20/2018 9:25	67000	67000	Y	
8/20/2018 9:30	68000	68000	Y	
8/20/2018 9:35	69000	69000	Y	
8/20/2018 9:40	70000	70000	Y	
8/20/2018 9:45	71000	71000	Y	
8/20/2018 9:50	72000	72000	Y	
8/20/2018 9:55	73000	73000	Y	
8/21/2018 8:00	74000	74000	Y	
8/21/2018 8:05	75000	75000	Y	
8/21/2018 8:10	76000	76000	Y	

Date	Latitude 1 (Decimal Time (sec))	Latitude 2 (Operation Time (sec))	Production 1	Comment
6/2/2018 18:00	2000	2000	F	
6/2/2018 18:05	2000	2000	F	
6/2/2018 18:10	2000	2000	F	
6/2/2018 18:15	2000	2000	F	
6/2/2018 18:20	2000	2000	F	
6/2/2018 18:25	2000	2000	F	
6/2/2018 18:30	2000	2000	F	
6/2/2018 18:35	2000	2000	F	
6/2/2018 18:40	2000	2000	F	
6/2/2018 18:45	2000	2000	F	
6/2/2018 18:50	2000	2000	F	
6/2/2018 18:55	2000	2000	F	
6/2/2018 19:00	2000	2000	F	
6/2/2018 19:05	2000	2000	F	
6/2/2018 19:10	2000	2000	F	
6/2/2018 19:15	2000	2000	F	
6/2/2018 19:20	2000	2000	F	
6/2/2018 19:25	2000	2000	F	
6/2/2018 19:30	2000	2000	F	
6/2/2018 19:35	2000	2000	F	
6/2/2018 19:40	2000	2000	F	
6/2/2018 19:45	2000	2000	F	
6/2/2018 19:50	2000	2000	F	
6/2/2018 19:55	2000	2000	F	
6/2/2018 20:00	2000	2000	F	
6/2/2018 20:05	2000	2000	F	
6/2/2018 20:10	2000	2000	F	
6/2/2018 20:15	2000	2000	F	
6/2/2018 20:20	2000	2000	F	
6/2/2018 20:25	2000	2000	F	
6/2/2018 20:30	2000	2000	F	
6/2/2018 20:35	2000	2000	F	
6/2/2018 20:40	2000	2000	F	
6/2/2018 20:45	2000	2000	F	
6/2/2018 20:50	2000	2000	F	
6/2/2018 20:55	2000	2000	F	
6/2/2018 21:00	2000	2000	F	
6/2/2018 21:05	2000	2000	F	
6/2/2018 21:10	2000	2000	F	
6/2/2018 21:15	2000	2000	F	
6/2/2018 21:20	2000	2000	F	
6/2/2018 21:25	2000	2000	F	
6/2/2018 21:30	2000	2000	F	
6/2/2018 21:35	2000	2000	F	
6/2/2018 21:40	2000	2000	F	
6/2/2018 21:45	2000	2000	F	
6/2/2018 21:50	2000	2000	F	
6/2/2018 21:55	2000	2000	F	
6/2/2018 22:00	2000	2000	F	
6/2/2018 22:05	2000	2000	F	
6/2/2018 22:10	2000	2000	F	
6/2/2018 22:15	2000	2000	F	
6/2/2018 22:20	2000	2000	F	
6/2/2018 22:25	2000	2000	F	
6/2/2018 22:30	2000	2000	F	
6/2/2018 22:35	2000	2000	F	
6/2/2018 22:40	2000	2000	F	
6/2/2018 22:45	2000	2000	F	
6/2/2018 22:50	2000	2000	F	
6/2/2018 22:55	2000	2000	F	
6/2/2018 23:00	2000	2000	F	
6/2/2018 23:05	2000	2000	F	
6/2/2018 23:10	2000	2000	F	
6/2/2018 23:15	2000	2000	F	
6/2/2018 23:20	2000	2000	F	
6/2/2018 23:25	2000	2000	F	
6/2/2018 23:30	2000	2000	F	
6/2/2018 23:35	2000	2000	F	
6/2/2018 23:40	2000	2000	F	
6/2/2018 23:45	2000	2000	F	
6/2/2018 23:50	2000	2000	F	
6/2/2018 23:55	2000	2000	F	
6/2/2018 00:00	2000	2000	F	
6/2/2018 00:05	2000	2000	F	
6/2/2018 00:10	2000	2000	F	
6/2/2018 00:15	2000	2000	F	
6/2/2018 00:20	2000	2000	F	
6/2/2018 00:25	2000	2000	F	
6/2/2018 00:30	2000	2000	F	

Time	Construction 1 (Days/Week)	Construction 2 (Days/Week)	Operation Time (sec)	Prod/Unit/1	Comment
8/22/2018 2:00			1000	N	
8/22/2018 2:05			1000	N	
8/22/2018 2:10			1000	N	
8/22/2018 2:15			1000	N	
8/22/2018 2:20			1000	N	
8/22/2018 2:25			1000	N	
8/22/2018 2:30			1000	N	
8/22/2018 2:35			1000	N	
8/22/2018 2:40			1000	N	
8/22/2018 2:45			1000	N	
8/22/2018 2:50			1000	N	
8/22/2018 2:55			1000	N	
8/22/2018 3:00			1000	N	
8/22/2018 3:05			1000	N	
8/22/2018 3:10			1000	N	
8/22/2018 3:15			1000	N	
8/22/2018 3:20			1000	N	
8/22/2018 3:25			1000	N	
8/22/2018 3:30			1000	N	
8/22/2018 3:35			1000	N	
8/22/2018 3:40			1000	N	
8/22/2018 3:45			1000	N	
8/22/2018 3:50			1000	N	
8/22/2018 3:55			1000	N	
8/22/2018 4:00			1000	N	
8/22/2018 4:05			1000	N	
8/22/2018 4:10			1000	N	
8/22/2018 4:15			1000	N	
8/22/2018 4:20			1000	N	
8/22/2018 4:25			1000	N	
8/22/2018 4:30			1000	N	
8/22/2018 4:35			1000	N	
8/22/2018 4:40			1000	N	
8/22/2018 4:45			1000	N	
8/22/2018 4:50			1000	N	
8/22/2018 4:55			1000	N	
8/22/2018 5:00			1000	N	
8/22/2018 5:05			1000	N	
8/22/2018 5:10			1000	N	
8/22/2018 5:15			1000	N	
8/22/2018 5:20			1000	N	
8/22/2018 5:25			1000	N	
8/22/2018 5:30			1000	N	
8/22/2018 5:35			1000	N	
8/22/2018 5:40			1000	N	
8/22/2018 5:45			1000	N	
8/22/2018 5:50			1000	N	
8/22/2018 5:55			1000	N	
8/22/2018 6:00			1000	N	
8/22/2018 6:05			1000	N	
8/22/2018 6:10			1000	N	
8/22/2018 6:15			1000	N	
8/22/2018 6:20			1000	N	
8/22/2018 6:25			1000	N	
8/22/2018 6:30			1000	N	
8/22/2018 6:35			1000	N	
8/22/2018 6:40			1000	N	
8/22/2018 6:45			1000	N	
8/22/2018 6:50			1000	N	
8/22/2018 6:55			1000	N	
8/22/2018 7:00			1000	N	
8/22/2018 7:05			1000	N	
8/22/2018 7:10			1000	N	
8/22/2018 7:15			1000	N	
8/22/2018 7:20			1000	N	
8/22/2018 7:25			1000	N	
8/22/2018 7:30			1000	N	
8/22/2018 7:35			1000	N	
8/22/2018 7:40			1000	N	
8/22/2018 7:45			1000	N	
8/22/2018 7:50			1000	N	
8/22/2018 7:55			1000	N	
8/22/2018 8:00			1000	N	
8/22/2018 8:05			1000	N	
8/22/2018 8:10			1000	N	
8/22/2018 8:15			1000	N	
8/22/2018 8:20			1000	N	
8/22/2018 8:25			1000	N	
8/22/2018 8:30			1000	N	
8/22/2018 8:35			1000	N	
8/22/2018 8:40</					

[illegible]

[illegible]

Date	Continuator 1 Dependent Time (sec)	Dependent (sec)	Continuator 2 Dependent Time (sec)	Continuator 2 (sec)	Product/Unit	Continuator
1-1-2018 1:00	1000	1000	1000	1000	1	
1-1-2018 1:01	1000	1000	1000	1000	1	
1-1-2018 1:02	1000	1000	1000	1000	1	
1-1-2018 1:03	1000	1000	1000	1000	1	
1-1-2018 1:04	1000	1000	1000	1000	1	
1-1-2018 1:05	1000	1000	1000	1000	1	
1-1-2018 1:06	1000	1000	1000	1000	1	
1-1-2018 1:07	1000	1000	1000	1000	1	
1-1-2018 1:08	1000	1000	1000	1000	1	
1-1-2018 1:09	1000	1000	1000	1000	1	
1-1-2018 1:10	1000	1000	1000	1000	1	
1-1-2018 1:11	1000	1000	1000	1000	1	
1-1-2018 1:12	1000	1000	1000	1000	1	
1-1-2018 1:13	1000	1000	1000	1000	1	
1-1-2018 1:14	1000	1000	1000	1000	1	
1-1-2018 1:15	1000	1000	1000	1000	1	
1-1-2018 1:16	1000	1000	1000	1000	1	
1-1-2018 1:17	1000	1000	1000	1000	1	
1-1-2018 1:18	1000	1000	1000	1000	1	
1-1-2018 1:19	1000	1000	1000	1000	1	
1-1-2018 1:20	1000	1000	1000	1000	1	
1-1-2018 1:21	1000	1000	1000	1000	1	
1-1-2018 1:22	1000	1000	1000	1000	1	
1-1-2018 1:23	1000	1000	1000	1000	1	
1-1-2018 1:24	1000	1000	1000	1000	1	
1-1-2018 1:25	1000	1000	1000	1000	1	
1-1-2018 1:26	1000	1000	1000	1000	1	
1-1-2018 1:27	1000	1000	1000	1000	1	
1-1-2018 1:28	1000	1000	1000	1000	1	
1-1-2018 1:29	1000	1000	1000	1000	1	
1-1-2018 1:30	1000	1000	1000	1000	1	
1-1-2018 1:31	1000	1000	1000	1000	1	
1-1-2018 1:32	1000	1000	1000	1000	1	
1-1-2018 1:33	1000	1000	1000	1000	1	
1-1-2018 1:34	1000	1000	1000	1000	1	
1-1-2018 1:35	1000	1000	1000	1000	1	
1-1-2018 1:36	1000	1000	1000	1000	1	
1-1-2018 1:37	1000	1000	1000	1000	1	
1-1-2018 1:38	1000	1000	1000	1000	1	
1-1-2018 1:39	1000	1000	1000	1000	1	
1-1-2018 1:40	1000	1000	1000	1000	1	
1-1-2018 1:41	1000	1000	1000	1000	1	
1-1-2018 1:42	1000	1000	1000	1000	1	
1-1-2018 1:43	1000	1000	1000	1000	1	
1-1-2018 1:44	1000	1000	1000	1000	1	
1-1-2018 1:45	1000	1000	1000	1000	1	
1-1-2018 1:46	1000	1000	1000	1000	1	
1-1-2018 1:47	1000	1000	1000	1000	1	
1-1-2018 1:48	1000	1000	1000	1000	1	
1-1-2018 1:49	1000	1000	1000	1000	1	
1-1-2018 1:50	1000	1000	1000	1000	1	
1-1-2018 1:51	1000	1000	1000	1000	1	
1-1-2018 1:52	1000	1000	1000	1000	1	
1-1-2018 1:53	1000	1000	1000	1000	1	
1-1-2018 1:54	1000	1000	1000	1000	1	
1-1-2018 1:55	1000	1000	1000	1000	1	
1-1-2018 1:56	1000	1000	1000	1000	1	
1-1-2018 1:57	1000	1000	1000	1000	1	

LEBAR 15-34-09 A PAD

Date	Combustion / Deposition (Year / Jan)	Combustion / Operation Time (min)	Production?	Contract
1/1/2014 10:00	2014	2014	Y	
1/1/2014 11:00	2014	2014	Y	
1/1/2014 12:00	2014	2014	Y	
1/1/2014 13:00	2014	2014	Y	
1/1/2014 14:00	2014	2014	Y	
1/1/2014 15:00	2014	2014	Y	
1/1/2014 16:00	2014	2014	Y	
1/1/2014 17:00	2014	2014	Y	
1/1/2014 18:00	2014	2014	Y	
1/1/2014 19:00	2014	2014	Y	
1/1/2014 20:00	2014	2014	Y	
1/1/2014 21:00	2014	2014	Y	
1/1/2014 22:00	2014	2014	Y	
1/1/2014 23:00	2014	2014	Y	
1/1/2014 24:00	2014	2014	Y	
1/1/2014 25:00	2014	2014	Y	
1/1/2014 26:00	2014	2014	Y	
1/1/2014 27:00	2014	2014	Y	
1/1/2014 28:00	2014	2014	Y	
1/1/2014 29:00	2014	2014	Y	
1/1/2014 30:00	2014	2014	Y	
1/1/2014 31:00	2014	2014	Y	
1/1/2014 32:00	2014	2014	Y	
1/1/2014 33:00	2014	2014	Y	
1/1/2014 34:00	2014	2014	Y	
1/1/2014 35:00	2014	2014	Y	
1/1/2014 36:00	2014	2014	Y	
1/1/2014 37:00	2014	2014	Y	
1/1/2014 38:00	2014	2014	Y	
1/1/2014 39:00	2014	2014	Y	
1/1/2014 40:00	2014	2014	Y	
1/1/2014 41:00	2014	2014	Y	
1/1/2014 42:00	2014	2014	Y	
1/1/2014 43:00	2014	2014	Y	
1/1/2014 44:00	2014	2014	Y	
1/1/2014 45:00	2014	2014	Y	
1/1/2014 46:00	2014	2014	Y	
1/1/2014 47:00	2014	2014	Y	
1/1/2014 48:00	2014	2014	Y	
1/1/2014 49:00	2014	2014	Y	
1/1/2014 50:00	2014	2014	Y	
1/1/2014 51:00	2014	2014	Y	
1/1/2014 52:00	2014	2014	Y	
1/1/2014 53:00	2014	2014	Y	
1/1/2014 54:00	2014	2014	Y	
1/1/2014 55:00	2014	2014	Y	
1/1/2014 56:00	2014	2014	Y	
1/1/2014 57:00	2014	2014	Y	
1/1/2014 58:00	2014	2014	Y	
1/1/2014 59:00	2014	2014	Y	
1/1/2014 60:00	2014	2014	Y	
1/1/2014 61:00	2014	2014	Y	
1/1/2014 62:00	2014	2014	Y	
1/1/2014 63:00	2014	2014	Y	
1/1/2014 64:00	2014	2014	Y	
1/1/2014 65:00	2014	2014	Y	
1/1/2014 66:00	2014	2014	Y	
1/1/2014 67:00	2014	2014	Y	
1/1/2014 68:00	2014	2014	Y	
1/1/2014 69:00	2014	2014	Y	
1/1/2014 70:00	2014	2014	Y	
1/1/2014 71:00	2014	2014	Y	
1/1/2014 72:00	2014	2014	Y	
1/1/2014 73:00	2014	2014	Y	
1/1/2014 74:00	2014	2014	Y	
1/1/2014 75:00	2014	2014	Y	
1/1/2014 76:00	2014	2014	Y	
1/1/2014 77:00	2014	2014	Y	
1/1/2014 78:00	2014	2014	Y	
1/1/2014 79:00	2014	2014	Y	
1/1/2014 80:00	2014	2014	Y	
1/1/2014 81:00	2014	2014	Y	
1/1/2014 82:00	2014	2014	Y	
1/1/2014 83:00	2014	2014	Y	
1/1/2014 84:00	2014	2014	Y	
1/1/2014 85:00	2014	2014	Y	
1/1/2014 86:00	2014	2014	Y	
1/1/2014 87:00	2014	2014	Y	
1/1/2014 88:00	2014	2014	Y	
1/1/2014 89:00	2014	2014	Y	
1/1/2014 90:00	2014	2014	Y	
1/1/2014 91:00	2014	2014	Y	
1/1/2014 92:00	2014	2014	Y	
1/1/2014 93:00	2014	2014	Y	
1/1/2014 94:00	2014	2014	Y	
1/1/2014 95:00	2014	2014	Y	
1/1/2014 96:00	2014	2014	Y	
1/1/2014 97:00	2014	2014	Y	
1/1/2014 98:00	2014	2014	Y	
1/1/2014 99:00	2014	2014	Y	
1/1/2014 100:00	2014	2014	Y	

LIBRARY 15-34-69 A FAC

Date	Contribution 1 (Operation Time sec)	Contribution 2 (Operation Time sec)	Profitability	Comment
2018-01-01	1000	1000	0	
2018-01-02	1000	1000	0	
2018-01-03	1000	1000	0	
2018-01-04	1000	1000	0	
2018-01-05	1000	1000	0	
2018-01-06	1000	1000	0	
2018-01-07	1000	1000	0	
2018-01-08	1000	1000	0	
2018-01-09	1000	1000	0	
2018-01-10	1000	1000	0	
2018-01-11	1000	1000	0	
2018-01-12	1000	1000	0	
2018-01-13	1000	1000	0	
2018-01-14	1000	1000	0	
2018-01-15	1000	1000	0	
2018-01-16	1000	1000	0	
2018-01-17	1000	1000	0	
2018-01-18	1000	1000	0	
2018-01-19	1000	1000	0	
2018-01-20	1000	1000	0	
2018-01-21	1000	1000	0	
2018-01-22	1000	1000	0	
2018-01-23	1000	1000	0	
2018-01-24	1000	1000	0	
2018-01-25	1000	1000	0	
2018-01-26	1000	1000	0	
2018-01-27	1000	1000	0	
2018-01-28	1000	1000	0	
2018-01-29	1000	1000	0	
2018-01-30	1000	1000	0	
2018-01-31	1000	1000	0	
2018-02-01	1000	1000	0	
2018-02-02	1000	1000	0	
2018-02-03	1000	1000	0	
2018-02-04	1000	1000	0	
2018-02-05	1000	1000	0	
2018-02-06	1000	1000	0	
2018-02-07	1000	1000	0	
2018-02-08	1000	1000	0	
2018-02-09	1000	1000	0	
2018-02-10	1000	1000	0	
2018-02-11	1000	1000	0	
2018-02-12	1000	1000	0	
2018-02-13	1000	1000	0	
2018-02-14	1000	1000	0	
2018-02-15	1000	1000	0	
2018-02-16	1000	1000	0	
2018-02-17	1000	1000	0	
2018-02-18	1000	1000	0	
2018-02-19	1000	1000	0	
2018-02-20	1000	1000	0	
2018-02-21	1000	1000	0	
2018-02-22	1000	1000	0	
2018-02-23	1000	1000	0	
2018-02-24	1000	1000	0	
2018-02-25	1000	1000	0	
2018-02-26	1000	1000	0	
2018-02-27	1000	1000	0	
2018-02-28	1000	1000	0	
2018-03-01	1000	1000	0	
2018-03-02	1000	1000	0	
2018-03-03	1000	1000	0	
2018-03-04	1000	1000	0	
2018-03-05	1000	1000	0	
2018-03-06	1000	1000	0	
2018-03-07	1000	1000	0	
2018-03-08	1000	1000	0	
2018-03-09	1000	1000	0	
2018-03-10	1000	1000	0	
2018-03-11	1000	1000	0	
2018-03-12	1000	1000	0	
2018-03-13	1000	1000	0	
2018-03-14	1000	1000	0	
2018-03-15	1000	1000	0	
2018-03-16	1000	1000	0	
2018-03-17	1000	1000	0	
2018-03-18	1000	1000	0	
2018-03-19	1000	1000	0	
2018-03-20	1000	1000	0	
2018-03-21	1000	1000	0	
2018-03-22	1000	1000	0	
2018-03-23	1000	1000	0	
2018-03-24	1000	1000	0	
2018-03-25	1000	1000	0	

Date	Contributor 1 (Depositor Name)	Contributor 2 (Checkmate Fund)	Product/Code	Comment
1/1/2018 10:00	1000	1000	0	
1/1/2018 11:00	1000	1000	0	
1/1/2018 12:00	1000	1000	0	
1/1/2018 13:00	1000	1000	0	
1/1/2018 14:00	1000	1000	0	
1/1/2018 15:00	1000	1000	0	
1/1/2018 16:00	1000	1000	0	
1/1/2018 17:00	1000	1000	0	
1/1/2018 18:00	1000	1000	0	
1/1/2018 19:00	1000	1000	0	
1/1/2018 20:00	1000	1000	0	
1/1/2018 21:00	1000	1000	0	
1/1/2018 22:00	1000	1000	0	
1/1/2018 23:00	1000	1000	0	
1/1/2018 24:00	1000	1000	0	
1/1/2018 25:00	1000	1000	0	
1/1/2018 26:00	1000	1000	0	
1/1/2018 27:00	1000	1000	0	
1/1/2018 28:00	1000	1000	0	
1/1/2018 29:00	1000	1000	0	
1/1/2018 30:00	1000	1000	0	
1/1/2018 31:00	1000	1000	0	
1/1/2018 32:00	1000	1000	0	
1/1/2018 33:00	1000	1000	0	
1/1/2018 34:00	1000	1000	0	
1/1/2018 35:00	1000	1000	0	
1/1/2018 36:00	1000	1000	0	
1/1/2018 37:00	1000	1000	0	
1/1/2018 38:00	1000	1000	0	
1/1/2018 39:00	1000	1000	0	
1/1/2018 40:00	1000	1000	0	
1/1/2018 41:00	1000	1000	0	
1/1/2018 42:00	1000	1000	0	
1/1/2018 43:00	1000	1000	0	
1/1/2018 44:00	1000	1000	0	
1/1/2018 45:00	1000	1000	0	
1/1/2018 46:00	1000	1000	0	
1/1/2018 47:00	1000	1000	0	
1/1/2018 48:00	1000	1000	0	
1/1/2018 49:00	1000	1000	0	
1/1/2018 50:00	1000	1000	0	
1/1/2018 51:00	1000	1000	0	
1/1/2018 52:00	1000	1000	0	
1/1/2018 53:00	1000	1000	0	
1/1/2018 54:00	1000	1000	0	
1/1/2018 55:00	1000	1000	0	
1/1/2018 56:00	1000	1000	0	
1/1/2018 57:00	1000	1000	0	
1/1/2018 58:00	1000	1000	0	
1/1/2018 59:00	1000	1000	0	
1/1/2018 60:00	1000	1000	0	
1/1/2018 61:00	1000	1000	0	
1/1/2018 62:00	1000	1000	0	
1/1/2018 63:00	1000	1000	0	
1/1/2018 64:00	1000	1000	0	
1/1/2018 65:00	1000	1000	0	
1/1/2018 66:00	1000	1000	0	
1/1/2018 67:00	1000	1000	0	
1/1/2018 68:00	1000	1000	0	
1/1/2018 69:00	1000	1000	0	
1/1/2018 70:00	1000	1000	0	
1/1/2018 71:00	1000	1000	0	
1/1/2018 72:00	1000	1000	0	
1/1/2018 73:00	1000	1000	0	
1/1/2018 74:00	1000	1000	0	
1/1/2018 75:00	1000	1000	0	
1/1/2018 76:00	1000	1000	0	
1/1/2018 77:00	1000	1000	0	
1/1/2018 78:00	1000	1000	0	
1/1/2018 79:00	1000	1000	0	
1/1/2018 80:00	1000	1000	0	
1/1/2018 81:00	1000	1000	0	
1/1/2018 82:00	1000	1000	0	
1/1/2018 83:00	1000	1000	0	
1/1/2018 84:00	1000	1000	0	
1/1/2018 85:00	1000	1000	0	
1/1/2018 86:00	1000	1000	0	
1/1/2018 87:00	1			

[illegible]

LESAR 15-04-09 A PWD

Date	Contributor 1 Deposition Time (sec)	Contributor 2 Operation Time (sec)	Production?	Comment
8/1/2018 1:54	2620	2620	F	
8/1/2018 1:57	2620	2620	F	
8/1/2018 1:58	2620	2620	F	
8/1/2018 1:59	2620	2620	F	
8/1/2018 2:00	2620	2620	F	
8/1/2018 2:01	2620	2620	F	
8/1/2018 2:02	2620	2620	F	
8/1/2018 2:03	2620	2620	F	
8/1/2018 2:04	2620	2620	F	
8/1/2018 2:05	2620	2620	F	
8/1/2018 2:06	2620	2620	F	
8/1/2018 2:07	2620	2620	F	
8/1/2018 2:08	2620	2620	F	
8/1/2018 2:09	2620	2620	F	
8/1/2018 2:10	2620	2620	F	

FUNK BANCH 33-69 S A PWD

Date	Contributor 1 Operation Time (sec)	Contributor 2 Operation Time (sec)	Production?	Comment
8/1/2018 8:00	2620	2620	F	
8/1/2018 8:01	2620	2620	F	
8/1/2018 8:02	2620	2620	F	
8/1/2018 8:03	2620	2620	F	
8/1/2018 8:04	2620	2620	F	
8/1/2018 8:05	2620	2620	F	
8/1/2018 8:06	2620	2620	F	
8/1/2018 8:07	2620	2620	F	
8/1/2018 8:08	2620	2620	F	
8/1/2018 8:09	2620	2620	F	
8/1/2018 8:10	2620	2620	F	
8/1/2018 8:11	2620	2620	F	
8/1/2018 8:12	2620	2620	F	
8/1/2018 8:13	2620	2620	F	
8/1/2018 8:14	2620	2620	F	
8/1/2018 8:15	2620	2620	F	
8/1/2018 8:16	2620	2620	F	
8/1/2018 8:17	2620	2620	F	
8/1/2018 8:18	2620	2620	F	
8/1/2018 8:19	2620	2620	F	
8/1/2018 8:20	2620	2620	F	
8/1/2018 8:21	2620	2620	F	
8/1/2018 8:22	2620	2620	F	
8/1/2018 8:23	2620	2620	F	
8/1/2018 8:24	2620	2620	F	
8/1/2018 8:25	2620	2620	F	
8/1/2018 8:26	2620	2620	F	
8/1/2018 8:27	2620	2620	F	
8/1/2018 8:28	2620	2620	F	
8/1/2018 8:29	2620	2620	F	
8/1/2018 8:30	2620	2620	F	
8/1/2018 8:31	2620	2620	F	
8/1/2018 8:32	2620	2620	F	
8/1/2018 8:33	2620	2620	F	
8/1/2018 8:34	2620	2620	F	
8/1/2018 8:35	2620	2620	F	
8/1/2018 8:36	2620	2620	F	
8/1/2018 8:37	2620	2620	F	
8/1/2018 8:38	2620	2620	F	
8/1/2018 8:39	2620	2620	F	
8/1/2018 8:40	2620	2620	F	
8/1/2018 8:41	2620	2620	F	
8/1/2018 8:42	2620	2620	F	
8/1/2018 8:43	2620	2620	F	
8/1/2018 8:44	2620	2620	F	
8/1/2018 8:45	2620	2620	F	
8/1/2018 8:46	2620	2620	F	
8/1/2018 8:47	2620	2620	F	
8/1/2018 8:48	2620	2620	F	
8/1/2018 8:49	2620	2620	F	
8/1/2018 8:50	2620	2620	F	
8/1/2018 8:51	2620	2620	F	
8/1/2018 8:52	2620	2620	F	
8/1/2018 8:53	2620	2620	F	
8/1/2018 8:54	2620	2620	F	
8/1/2018 8:55	2620	2620	F	
8/1/2018 8:56	2620	2620	F	
8/1/2018 8:57	2620	2620	F	
8/1/2018 8:58	2620	2620	F	
8/1/2018 8:59	2620	2620	F	
8/1/2018 9:00	2620	2620	F	
8/1/2018 9:01	2620	2620	F	
8/1/2018 9:02	2620	2620	F	
8/1/2018 9:03	2620	2620	F	
8/1/2018 9:04	2620	2620	F	
8/1/2018 9:05	2620	2620	F	
8/1/2018 9:06	2620	2620	F	
8/1/2018 9:07	2620	2620	F	
8/1/2018 9:08	2620	2620	F	
8/1/2018 9:09	2620	2620	F	
8/1/2018 9:10	2620	2620	F	
8/1/2018 9:11	2620	2620	F	
8/1/2018 9:12	2620	2620	F	
8/1/2018 9:13	2620	2620	F	
8/1/2018 9:14	2620	2620	F	
8/1/2018 9:15	2620	2620	F	
8/1/2018 9:16	2620	2620	F	
8/1/2018 9:17	2620	2620	F	
8/1/2018 9:18	2620	2620	F	
8/1/2018 9:19	2620	2620	F	
8/1/2018 9:20	2620	2620	F	
8/1/2018 9:21	2620	2620	F	
8/1/2018 9:22	2620	2620	F	
8/1/2018 9:23	2620	2620	F	
8/1/2018 9:24	2620	2620	F	
8/1/2018 9:25	2620	2620	F	
8/1/2018 9:26	2620	2620	F	
8/1/2018 9:27	2620	2620	F	
8/1/2018 9:28	2620	2620	F	
8/1/2018 9:29	2620	2620	F	
8/1/2018 9:30	2620	2620	F	
8/1/2018 9:31	2620	2620	F	
8/1/2018 9:32	2620	2620	F	
8/1/2018 9:33	2620	2620	F	
8/1/2018 9:34	2620	2620	F	
8/1/2018 9:35	2620	2620	F	
8/1/2018 9:36	2620	2620	F	
8/1/2018 9:37	2620	2620	F	
8/1/2018 9:38	2620	2620	F	
8/1/2018 9:39	2620	2620	F	
8/1/2018 9:40	2620	2620	F	
8/1/2018 9:41	2620	2620	F	
8/1/2018 9:42	2620	2620	F	
8/1/2018 9:43	2620	2620	F	
8/1/2018 9:44	2620	2620	F	
8/1/2018 9:45	2620	2620	F	
8/1/2018 9:46	2620	2620	F	
8/1/2018 9:47	2620	2620	F	
8/1/2018 9:48	2620	2620	F	
8/1/2018 9:49	2620	2620	F	
8/1/2018 9:50	2620	2620	F	
8/1/2018 9:51	2620	2620	F	
8/1/2018 9:52	2620	2620	F	
8/1/2018 9:53	2620	2620	F	
8/1/2018 9:54	2620	2620	F	
8/1/2018 9:55	2620	2620	F	
8/1/2018 9:56	2620	2620	F	
8/1/2018 9:57	2620	2620	F	
8/1/2018 9:58	2620	2620	F	
8/1/2018 9:59	2620	2620	F	
8/1/2018 10:00	2620	2620	F	

[illegible]

Date	Contributor 1		Contributor 2		Production?	Comment
	Channel	Time (sec)	Channel	Time (sec)		
1/2/2018 20:00	1901	1900			Y	
1/2/2018 21:00	1901	1900			Y	
1/2/2018 22:00	1901	1900			Y	
1/2/2018 23:00	1901	1900			Y	
1/3/2018 0:00	1901	1900			Y	
1/3/2018 1:00	1901	1900			Y	
1/3/2018 2:00	1901	1900			Y	
1/3/2018 3:00	1901	1900			Y	
1/3/2018 4:00	1901	1900			Y	
1/3/2018 5:00	1901	1900			Y	
1/3/2018 6:00	1901	1900			Y	
1/3/2018 7:00	1901	1900			Y	
1/3/2018 8:00	1901	1900			Y	
1/3/2018 9:00	1901	1900			Y	
1/3/2018 10:00	1901	1900			Y	
1/3/2018 11:00	1901	1900			Y	
1/3/2018 12:00	1901	1900			Y	
1/3/2018 13:00	1901	1900			Y	
1/3/2018 14:00	1901	1900			Y	
1/3/2018 15:00	1901	1900			Y	
1/3/2018 16:00	1901	1900			Y	
1/3/2018 17:00	1901	1900			Y	
1/3/2018 18:00	1901	1900			Y	
1/3/2018 19:00	1901	1900			Y	
1/3/2018 20:00	1901	1900			Y	
1/3/2018 21:00	1901	1900			Y	
1/3/2018 22:00	1901	1900			Y	
1/3/2018 23:00	1901	1900			Y	
1/4/2018 0:00	1901	1900			Y	
1/4/2018 1:00	1901	1900			Y	
1/4/2018 2:00	1901	1900			Y	
1/4/2018 3:00	1901	1900			Y	
1/4/2018 4:00	1901	1900			Y	
1/4/2018 5:00	1901	1900			Y	
1/4/2018 6:00	1901	1900			Y	
1/4/2018 7:00	1901	1900			Y	
1/4/2018 8:00	1901	1900			Y	
1/4/2018 9:00	1901	1900			Y	
1/4/2018 10:00	1901	1900			Y	
1/4/2018 11:00	1901	1900			Y	
1/4/2018 12:00	1901	1900			Y	
1/4/2018 13:00	1901	1900			Y	
1/4/2018 14:00	1901	1900			Y	
1/4/2018 15:00	1901	1900			Y	
1/4/2018 16:00	1901	1900			Y	
1/4/2018 17:00	1901	1900			Y	
1/4/2018 18:00	1901	1900			Y	
1/4/2018 19:00	1901	1900			Y	
1/4/2018 20:00	1901	1900			Y	
1/4/2018 21:00	1901	1900			Y	
1/4/2018 22:00	1901	1900			Y	
1/4/2018 23:00	1901	1900			Y	
1/5/2018 0:00	1901	1900			Y	
1/5/2018 1:00	1901	1900			Y	
1/5/2018 2:00	1901	1900			Y	
1/5/2018 3:00	1901	1900			Y	
1/5/2018 4:00	1901	1900			Y	
1/5/2018 5:00	1901	1900			Y	
1/5/2018 6:00	1901	1900			Y	
1/5/2018 7:00	1901	1900			Y	
1/5/2018 8:00	1901	1900			Y	
1/5/2018 9:00	1901	1900			Y	
1/5/2018 10:00	1901	1900			Y	
1/5/2018 11:00	1901	1900			Y	
1/5/2018 12:00	1901	1900			Y	
1/5/2018 13:00	1901	1900			Y	
1/5/2018 14:00	1901	1900			Y	

YORK RANCH 33-09-S A PAD

Date	Competition 1 (Date and Time)	Competition 2 (Date and Time)	Production 1	Competition
1/1/2018 1:00	1:00	1:00	Y	
1/1/2018 1:30	1:30	1:30	Y	
1/1/2018 2:00	2:00	2:00	Y	
1/1/2018 2:30	2:30	2:30	Y	
1/1/2018 3:00	3:00	3:00	Y	
1/1/2018 3:30	3:30	3:30	Y	
1/1/2018 4:00	4:00	4:00	Y	
1/1/2018 4:30	4:30	4:30	Y	
1/1/2018 5:00	5:00	5:00	Y	
1/1/2018 5:30	5:30	5:30	Y	
1/1/2018 6:00	6:00	6:00	Y	
1/1/2018 6:30	6:30	6:30	Y	
1/1/2018 7:00	7:00	7:00	Y	
1/1/2018 7:30	7:30	7:30	Y	
1/1/2018 8:00	8:00	8:00	Y	
1/1/2018 8:30	8:30	8:30	Y	
1/1/2018 9:00	9:00	9:00	Y	
1/1/2018 9:30	9:30	9:30	Y	
1/1/2018 10:00	10:00	10:00	Y	
1/1/2018 10:30	10:30	10:30	Y	
1/1/2018 11:00	11:00	11:00	Y	
1/1/2018 11:30	11:30	11:30	Y	
1/1/2018 12:00	12:00	12:00	Y	
1/1/2018 12:30	12:30	12:30	Y	
1/1/2018 13:00	13:00	13:00	Y	
1/1/2018 13:30	13:30	13:30	Y	
1/1/2018 14:00	14:00	14:00	Y	
1/1/2018 14:30	14:30	14:30	Y	
1/1/2018 15:00	15:00	15:00	Y	
1/1/2018 15:30	15:30	15:30	Y	
1/1/2018 16:00	16:00	16:00	Y	
1/1/2018 16:30	16:30	16:30	Y	
1/1/2018 17:00	17:00	17:00	Y	
1/1/2018 17:30	17:30	17:30	Y	
1/1/2018 18:00	18:00	18:00	Y	
1/1/2018 18:30	18:30	18:30	Y	
1/1/2018 19:00	19:00	19:00	Y	
1/1/2018 19:30	19:30	19:30	Y	
1/1/2018 20:00	20:00	20:00	Y	
1/1/2018 20:30	20:30	20:30	Y	
1/1/2018 21:00	21:00	21:00	Y	
1/1/2018 21:30	21:30	21:30	Y	
1/1/2018 22:00	22:00	22:00	Y	
1/1/2018 22:30	22:30	22:30	Y	
1/1/2018 23:00	23:00	23:00	Y	
1/1/2018 23:30	23:30	23:30	Y	
1/1/2018 24:00	24:00	24:00	Y	
1/1/2018 24:30	24:30	24:30	Y	
1/1/2018 25:00	25:00	25:00	Y	
1/1/2018 25:30	25:30	25:30	Y	
1/1/2018 26:00	26:00	26:00	Y	
1/1/2018 26:30	26:30	26:30	Y	
1/1/2018 27:00	27:00	27:00	Y	
1/1/2018 27:30	27:30	27:30	Y	
1/1/2018 28:00	28:00	28:00	Y	
1/1/2018 28:30	28:30	28:30	Y	
1/1/2018 29:00	29:00	29:00	Y	
1/1/2018 29:30	29:30	29:30	Y	
1/1/2018 30:00	30:00	30:00	Y	
1/1/2018 30:30	30:30	30:30	Y	
1/1/2018 31:00	31:00	31:00	Y	
1/1/2018 31:30	31:30	31:30	Y	
1/1/2018 32:00	32:00	32:00	Y	
1/1/2018 32:30	32:30	32:30	Y	
1/1/2018 33:00	33:00	33:00	Y	
1/1/2018 33:30	33:30	33:30	Y	
1/1/2018 34:00	34:00	34:00	Y	
1/1/2018 34:30	34:30	34:30	Y	
1/1/2018 35:00	35:00	35:00	Y	
1/1/2018 35:30	35:30	35:30	Y	
1/1/2018 36:00	36:00	36:00	Y	
1/1/2018 36:30	36:30	36:30	Y	
1/1/2018 37:00	37:00	37:00	Y	
1/1/2018 37:30	37:30	37:30	Y	
1/1/2018 38:00	38:00	38:00	Y	
1/1/2018 38:30	38:30			

YORK RANCH 33-69-5 A PAD

Date	Contributor 1 Operation Time (sec.)	Contributor 2 Operation Time (sec.)	Production?	Comments
1/18/2018 16:05			N	
1/18/2018 17:29			N	
1/18/2018 18:05			N	
1/18/2018 19:00			N	
1/18/2018 20:20			N	
1/18/2018 21:05			N	
1/18/2018 22:00			N	
1/18/2018 23:00			N	
1/18/2018 0:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5:00			N	
1/18/2018 6:00			N	
1/18/2018 7:00			N	
1/18/2018 8:00			N	
1/18/2018 9:00			N	
1/18/2018 10:00			N	
1/18/2018 11:00			N	
1/18/2018 12:00			N	
1/18/2018 1:00			N	
1/18/2018 2:00			N	
1/18/2018 3:00			N	
1/18/2018 4:00			N	
1/18/2018 5				

[illegible][illegible]

Time	Coordinate 1 Longitude Time (sec)	Coordinate 2 Latitude Time (sec)	Coordinate 3 Altitude Time (sec)	Coordinate 4 Speed Time (sec)
2018-01-18 12:00	0	0	0	0
2018-01-18 12:05	0	0	0	0
2018-01-18 12:10	0	0	0	0
2018-01-18 12:15	0	0	0	0
2018-01-18 12:20	0	0	0	0
2018-01-18 12:25	0	0	0	0
2018-01-18 12:30	0	0	0	0
2018-01-18 12:35	0	0	0	0
2018-01-18 12:40	0	0	0	0
2018-01-18 12:45	0	0	0	0
2018-01-18 12:50	0	0	0	0
2018-01-18 12:55	0	0	0	0
2018-01-18 13:00	0	0	0	0
2018-01-18 13:05	0	0	0	0
2018-01-18 13:10	0	0	0	0
2018-01-18 13:15	0	0	0	0
2018-01-18 13:20	0	0	0	0
2018-01-18 13:25	0	0	0	0
2018-01-18 13:30	0	0	0	0
2018-01-18 13:35	0	0	0	0
2018-01-18 13:40	0	0	0	0
2018-01-18 13:45	0	0	0	0
2018-01-18 13:50	0	0	0	0
2018-01-18 13:55	0	0	0	0
2018-01-18 14:00	0	0	0	0
2018-01-18 14:05	0	0	0	0
2018-01-18 14:10	0	0	0	0
2018-01-18 14:15	0	0	0	0
2018-01-18 14:20	0	0	0	0
2018-01-18 14:25	0	0	0	0
2018-01-18 14:30	0	0	0	0
2018-01-18 14:35	0	0	0	0
2018-01-18 14:40	0	0	0	0
2018-01-18 14:45	0	0	0	0
2018-01-18 14:50	0	0	0	0
2018-01-18 14:55	0	0	0	0
2018-01-18 15:00	0	0	0	0
2018-01-18 15:05	0	0	0	0
2018-01-18 15:10	0	0	0	0
2018-01-18 15:15	0	0	0	0
2018-01-18 15:20	0	0	0	0
2018-01-18 15:25	0	0	0	0
2018-01-18 15:30	0	0	0	0
2018-01-18 15:35	0	0	0	0
2018-01-18 15:40	0	0	0	0
2018-01-18 15:45	0	0	0	0
2018-01-18 15:50	0	0	0	0
2018-01-18 15:55	0	0	0	0
2018-01-18 16:00	0	0	0	0
2018-01-18 16:05	0	0	0	0
2018-01-18 16:10	0	0	0	0
2018-01-18 16:15	0	0	0	0
2018-01-18 16:20	0	0	0	0
2018-01-18 16:25	0	0	0	0
2018-01-18 16:30	0	0	0	0
2018-01-18 16:35	0	0	0	0
2018-01-18 16:40	0	0	0	0
2018-01-18 16:45	0	0	0	0
2018-01-18 16:50	0	0	0	0
2018-01-18 16:55	0	0	0	0
2018-01-18 17:00	0	0	0	0
2018-01-18 17:05	0	0	0	0
2018-01-18 17:10	0	0	0	0
2018-01-18 17:15	0	0	0	0
2018-01-18 17:20	0	0	0	0
2018-01-18 17:25	0	0	0	0
2018-01-18 17:30	0	0	0	0
2018-01-18 17:35	0	0	0	0
2018-01-18 17:40	0	0	0	0
2018-01-18 17:45	0	0	0	0
2018-01-18 17:50	0	0	0	0
2018-01-18 17:55	0	0	0	0
2018-01-18 18:00	0	0	0	0
2018-01-18 18:05	0	0	0	0
2018-01-18 18:10	0	0	0	0
2018-01-18 18:15	0	0	0	0
2018-01-18 18:20	0	0	0	0
2018-01-18 18:25	0	0	0	0
2018-01-18 18:30	0	0	0	0
2018-01-18 18:35	0	0	0	0

Date	Contributor 1 Operation Time (sec)	Contributor 2 Operation Time (sec)	Production?	Comments
2/17/2014 8:50				Y
2/17/2014 9:00				Y
2/17/2014 10:00				Y
2/17/2014 10:05				Y
2/17/2014 10:05				Y
2/17/2014 10:10				N
2/17/2014 10:15				Y
2/17/2014 11:00				Y
2/17/2014 11:45				Y
2/17/2014 12:00				Y
2/17/2014 12:05				Y
2/17/2014 12:05				Y
2/17/2014 12:10				Y
2/17/2014 12:15				Y
2/17/2014 12:20				Y
2/17/2014 12:25				Y
2/17/2014 12:30				Y
2/17/2014 12:35				Y
2/17/2014 12:40				Y
2/17/2014 12:45				Y
2/17/2014 12:50				Y
2/17/2014 12:55				Y
2/17/2014 1:00				Y
2/17/2014 1:05				Y
2/17/2014 1:10				Y
2/17/2014 1:15				Y
2/17/2014 1:20				Y
2/17/2014 1:25				Y
2/17/2014 1:30				Y
2/17/2014 1:35				Y
2/17/2014 1:40				Y
2/17/2014 1:45				Y
2/17/2014 1:50				Y
2/17/2014 1:55				Y
2/17/2014 2:00				Y
2/17/2014 2:05				Y
2/17/2014 2:10				Y
2/17/2014 2:15				Y
2/17/2014 2:20				Y
2/17/2014 2:25				Y
2/17/2014 2:30				Y
2/17/2014 2:35				Y
2/17/2014 2:40				Y
2/17/2014 2:45				Y
2/17/2014 2:50				Y
2/17/2014 2:55				Y
2/17/2014 3:00				Y
2/17/2014 3:05				Y
2/17/2014 3:10				Y
2/17/2014 3:15				Y
2/17/2014 3:20				Y
2/17/2014 3:25				Y
2/17/2014 3:30				Y
2/17/2014 3:35				Y
2/17/2014 3:40				Y
2/17/2014 3:45				Y
2/17/2014 3:50				Y
2/17/2014 3:55				Y
2/17/2014 4:00				Y
2/17/2014 4:05				Y
2/17/2014 4:10				Y
2/17/2014 4:15				Y
2/17/2014 4:20				Y
2/17/2014 4:25				Y
2/17/2014 4:30				Y
2/17/2014 4:35				Y
2/17/2014 4:40				Y
2/17/2014 4:45				Y
2/17/2014 4:50				Y
2/17/2014 4:55				Y
2/17/2014 5:00				Y
2/17/2014 5:05				Y
2/17/2014 5:10				Y
2/17/2014 5:15				Y
2/17/2014 5:20				Y
2/17/2014 5:25				Y
2/17/2014 5:30				Y
2/17/2014 5:35				Y
2/17/2014 5:40				Y
2/17/2014 5:45				Y
2/17/2014 5:50				Y
2/17/2014 5:55				Y
2/17/2014 6:00				Y
2/17/2014 6:05				Y
2/17/2014 6:10				Y
2/17/2014 6:15				Y
2/17/2014 6:20				Y
2/17/2014 6:25				Y
2/17/2014 6:30				Y
2/17/2014 6:35				Y
2/17/2014 6:40				Y
2/17/2014 6:45				Y
2/17/2014 6:50				Y
2/17/2014 6:55				Y
2/17/2014 7:00				Y
2/17/2014				

YORK RANCH SS-69-5 A PAD

[illegible]

YORK RANCH 33-09-5 A PAD

Row	Operation Time (sec)	Combinator 1 Operation Time (sec)	Productout?	Comment
2/12/2018 1:30	3600	0	Y	
2/12/2018 1:35	3600	0	Y	
2/12/2018 1:40	3600	0	Y	
2/12/2018 1:45	3600	0	Y	
2/12/2018 1:50	3600	0	Y	
2/12/2018 1:55	3600	0	Y	
2/12/2018 2:00	3600	0	Y	
2/12/2018 2:05	3600	0	Y	
2/12/2018 2:10	3600	0	Y	
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2/12/2018 2:35	3600	0	Y	
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2/12/2018 2:45	3600	0	Y	
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2/12/2018 22:10	3600	0	Y	
2/12/2018 22:15	3600	0	Y	
2/12/2018 22:20	3600	0	Y	
2/12/2018 22:25	3600	0	Y	
2/12/2018 22:30	3600	0	Y	
2/12/2018 22:35	3600	0</		

[illegible]

Date	Coordinate 1 Observer Time (min)	Coordinate 2 Observer Time (min)	Product(s)?	Comment
3/14/2018 17:50	2000	2000	Y	
3/14/2018 17:55	2000	2000	Y	
3/14/2018 18:00	2000	2000	Y	
3/14/2018 20:00	2000	2000	Y	
3/14/2018 21:00	2000	2000	Y	
3/14/2018 21:45	2000	2000	Y	
3/17/2018 22:20	2000	2000	Y	
3/17/2018 23:20	2000	2000	Y	
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3/18/2018 00:05	2000	2000	Y	
3/18/2018 00:10	2000	2000	Y	
3/18/2018 00:15	2000	2000	Y	
3/18/2018 00:20	2000	2000	Y	
3/18/2018 00:25	2000	2000	Y	
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3/18/2018 00:40	2000	2000	Y	
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3/18/2018 00:50	2000	2000	Y	
3/18/2018 00:55	2000	2000	Y	
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3/18/2018 01:10	2000	2000	Y	
3/18/2018 01:15	2000	2000	Y	
3/18/2018 01:20	2000	2000	Y	
3/18/2018 01:25	2000	2000	Y	
3/18/2018 01:30	2000	2000	Y	
3/18/2018 01:35	2000	2000	Y	
3/18/2018 01:40	2000	2000	Y	
3/18/2018 01:45	2000	2000	Y	
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3/18/2018 01:55	2000	2000	Y	
3/18/2018 02:00	2000	2000	Y	
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3/18/2018 02:25	2000	2000	Y	
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3/18/2018 02:55	2000	2000	Y	
3/18/2018 03:00	2000	2000	Y	
3/18/2018 03:05	2000	2000	Y	
3/18/2018 03:10	2000	2000	Y	
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3/18/2018 03:50	2000	2000	Y	
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3/18/2018 04:10	2000	2000	Y	
3/18/2018 04:15	2000	2000	Y	
3/18/2018 04:20	2000	2000	Y	
3/18/2018 04:25	2000	2000	Y	
3/18/2018 04:30	2000	2000	Y	
3/18/2018 04:35	2000	2000	Y	
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3/18/2018 04:55	2000	2000	Y	
3/18/2018 05:00	2000	2000	Y	
3/18/2018 05:05	2000	2000	Y	
3/18/2018 05:10	2000	2000	Y	
3/18/2018 05:15	2000	2000	Y	
3/18/2018 05:20	2000	2000	Y	
3/18/2018 05:25	2000	2000	Y	
3/18/2018 05:30	2000	2000	Y	</

YORK RANCH 33-69-5 A PAD

Date	Depositor (Name and)	Quarter (Time and)	Production?	Comment
4/1/2018 10:00		1000	F	
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4/1/2018 11:00		1100	F	
4/1/2018 11:30		1130	F	
4/1/2018 12:00		1200	F	
4/1/2018 12:30		1230	F	
4/1/2018 13:00		1300	F	
4/1/2018 13:30		1330	F	
4/1/2018 14:00		1400	F	
4/1/2018 14:30		1430	F	
4/1/2018 15:00		1500	F	
4/1/2018 15:30		1530	F	
4/1/2018 16:00		1600	F	
4/1/2018 16:30		1630	F	
4/1/2018 17:00		1700	F	
4/1/2018 17:30		1730	F	
4/1/2018 18:00		1800	F	
4/1/2018 18:30		1830	F	
4/1/2018 19:00		1900	F	
4/1/2018 19:30		1930	F	
4/1/2018 20:00		2000	F	
4/1/2018 20:30		2030	F	
4/1/2018 21:00		2100	F	
4/1/2018 21:30		2130	F	
4/1/2018 22:00		2200	F	
4/1/2018 22:30		2230	F	
4/1/2018 23:00		2300	F	
4/1/2018 23:30		2330	F	
4/1/2018 24:00		2400	F	
4/1/2018 24:30		2430	F	
4/1/2018 25:00		2500	F	
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4/1/2018 27:00		2700	F	
4/1/2018 27:30		2730	F	
4/1/2018 28:00		2800	F	
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4/1/2018 30:00		3000	F	
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4/1/2018 31:30		3130	F	
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4/1/2018 33:30		3330	F	
4/1/2018 34:00		3400	F	
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4/1/2018 37:00		3700	F	
4/1/2018 37:30		3730	F	
4/1/2018 38:00		3800	F	
4/1/2018 38:30		3830	F	
4/1/2018 39:00		3900	F	
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4/1/2018 40:30		4030	F	
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4/1/2018 41:30		4130	F	
4/1/2018 42:00		4200	F	
4/1/2018 42:30		4230	F	
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4/1/2018 45:00		4500	F	
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4/1/2018 47:00		4700	F	
4/1/2018 47:30		4730	F	
4/1/2018 48:00		4800	F	
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4/1/2018 76:30		7630	F	
4/1/2018 77:00		7700	F	
4/1/2018 77:30		7730	F	
4/1/2018 78:00		7800	F	
4/1/2018 78:30		7830	F	
4/1/2018 79:00		7900	F	
4/1/2018 79:30		7930	F	
4/1/2018 80:00		8000	F	
4/1/2018 80:30		8030	F	
4/1/2018 81:00		8100	F	
4/1/2018 81:30		8130	F	
4/1/2018 82:00		8200	F	
4/1/2018 82:30		8230	F	
4/1/2018 83:00		8300	F	
4/1/2018 83:30		8330	F	
4/1/2018 84:00		8400	F	
4/1/2018 84:30		8430	F	
4/1/2018 85:00		8500	F	
4/1/2018 85:30		8530	F	
4/1/2018 86:00		8600	F	
4/1/2018 86:30		8630	F	
4/1/2018 87:00		8700	F	
4/1/2018 87:30		8730	F	
4/1/2018 88:00		8800	F	
4/1/2018 88:30		8830	F	
4/1/2018 89:00		8900	F	
4/1/2018 89:30		8930	F	
4/1/2018 90:00		9000	F	
4/1/2018 90:30		9030	F	
4/1/2018 91:00		9100	F	
4/1/2018 91:30		9130	F	
4/1/2018 92:00		9200	F	
4/1/2018 92:30		9230	F	
4/1/2018 93:00		9300	F	
4/1/2018 93:30		9330	F	
4/1/2018 94:00		9400	F	
4/1/2018 94:30		9430	F	
4/1/2018 95:00		9500	F	
4/1/2018 95:30		9530	F	
4/1/2018 96:00		9600	F	
4/1/2018 96:30		9630	F	
4/1/2018 97:00		9700	F	
4/1/2018 97:30		9730	F	
4/1/2018 98:00		9800	F	
4/1/2018 98:30		9830	F	
4/1/2018 99:00		9900	F	
4/1/2018 99:30		9930	F	
4/1/2018 100:00		10000	F	

YORK RANCH 33-69-5 A PAD

Date	Construction 1 Operation Time (sec)	Construction 2 Operation Time (sec)	Production2	Comment
6/3/2018 1:00	3000	3000	Y	
6/3/2018 1:05	2970	2970	Y	
6/3/2018 1:10	2940	2940	Y	
6/3/2018 1:15	2910	2910	Y	
6/3/2018 1:20	2880	2880	Y	
6/3/2018 1:25	2850	2850	Y	
6/3/2018 1:30	2820	2820	Y	
6/3/2018 1:35	2790	2790	Y	
6/3/2018 1:40	2760	2760	Y	
6/3/2018 1:45	2730	2730	Y	
6/3/2018 1:50	2700	2700	Y	
6/3/2018 1:55	2670	2670	Y	
6/3/2018 2:00	2640	2640	Y	
6/3/2018 2:05	2610	2610	Y	
6/3/2018 2:10	2580	2580	Y	
6/3/2018 2:15	2550	2550	Y	
6/3/2018 2:20	2520	2520	Y	
6/3/2018 2:25	2490	2490	Y	
6/3/2018 2:30	2460	2460	Y	
6/3/2018 2:35	2430	2430	Y	
6/3/2018 2:40	2400	2400	Y	
6/3/2018 2:45	2370	2370	Y	
6/3/2018 2:50	2340	2340	Y	
6/3/2018 2:55	2310	2310	Y	
6/3/2018 3:00	2280	2280	Y	
6/3/2018 3:05	2250	2250	Y	
6/3/2018 3:10	2220	2220	Y	
6/3/2018 3:15	2190	2190	Y	
6/3/2018 3:20	2160	2160	Y	
6/3/2018 3:25	2130	2130	Y	
6/3/2018 3:30	2100	2100	Y	
6/3/2018 3:35	2070	2070	Y	
6/3/2018 3:40	2040	2040	Y	
6/3/2018 3:45	2010	2010	Y	
6/3/2018 3:50	1980	1980	Y	
6/3/2018 3:55	1950	1950	Y	
6/3/2018 4:00	1920	1920	Y	
6/3/2018 4:05	1890	1890	Y	
6/3/2018 4:10	1860	1860	Y	
6/3/2018 4:15	1830	1830	Y	
6/3/2018 4:20	1800	1800	Y	
6/3/2018 4:25	1770	1770	Y	
6/3/2018 4:30	1740	1740	Y	
6/3/2018 4:35	1710	1710	Y	
6/3/2018 4:40	1680	1680	Y	
6/3/2018 4:45	1650	1650	Y	
6/3/2018 4:50	1620	1620	Y	
6/3/2018 4:55	1590	1590	Y	
6/3/2018 5:00	1560	1560	Y	
6/3/2018 5:05	1530	1530	Y	
6/3/2018 5:10	1500	1500	Y	
6/3/2018 5:15	1470	1470	Y	
6/3/2018 5:20	1440	1440	Y	
6/3/2018 5:25	1410	1410	Y	
6/3/2018 5:30	1380	1380	Y	
6/3/2018 5:35	1350	1350	Y	
6/3/2018 5:40	1320	1320	Y	
6/3/2018 5:45	1290	1290	Y	
6/3/2018 5:50	1260	1260	Y	
6/3/2018 5:55	1230	1230	Y	
6/3/2018 6:00	1200	1200	Y	
6/3/2018 6:05	1170	1170	Y	
6/3/2018 6:10	1140	1140	Y	
6/3/2018 6:15	1110	1110	Y	
6/3/2018 6:20	1080	1080	Y	
6/3/2018 6:25	1050	1050	Y	
6/3/2018 6:30	1020	1020	Y	
6/3/2018 6:35	990	990	Y	
6/3/2018 6:40	960	960	Y	
6/3/2018 6:45	930	930	Y	
6/3/2018 6:50	900	900	Y	
6/3/2018 6:55	870	870	Y	
6/3/2018 7:00	840	840	Y	
6/3/2018 7:05	810	810	Y	
6/3/2018 7:10	780	780	Y	
6/3/2018 7:15	750	750	Y	
6/3/2018 7:20	720	720	Y	
6/3/2018 7:25	690	690	Y	
6/3/2018 7:30	660	660	Y	
6/3/2018 7:35	630	630	Y	
6/3/2018 7:40	600	600	Y	
6/3/2018 7:45	570	570	Y	
6/3/2018 7:50	540	540	Y	
6/3/2018 7:55	510	510	Y	
6/3/2018 8:00	480	480	Y	
6/3/2018 8:05	450	450	Y	
6/3/2018 8:10	420	420	Y	
6/3/2018 8:15	390	390	Y	
6/3/2018 8:20	360	360	Y	
6/3/2018 8:25	330	330	Y	
6/3/2018 8:30	300	300	Y	
6/3/2018 8:35	270	270	Y	
6/3/2018 8:40	240	240	Y	
6/3/2018 8:45	210	210	Y	
6/3/2018 8:50	180	180	Y	
6/3/2018 8:55	150	150	Y	
6/3/2018 9:00	120	120	Y	
6/3/2018 9:05	90	90	Y	
6/3/2018 9:10	60	60	Y	
6/3/2018 9:15	30	30	Y	
6/3/2018 9:20	0	0	Y	

Date	Competition 1 Opposition (Away)	Competition 2 Opposition (Home)	Production 1	Comscore
6/12/2018 15:30	WOL	WOL	Y	
6/14/2018 16:30	WOL	WOL	Y	
6/14/2018 17:00	WOL	WOL	Y	
6/14/2018 18:00	WOL	WOL	Y	
6/14/2018 18:30	WOL	WOL	Y	
6/14/2018 19:00	WOL	WOL	Y	
6/14/2018 19:30	WOL	WOL	Y	
6/14/2018 20:00	WOL	WOL	Y	
6/14/2018 20:30	WOL	WOL	Y	
6/14/2018 21:00	WOL	WOL	Y	
6/14/2018 21:30	WOL	WOL	Y	
6/14/2018 22:00	WOL	WOL	Y	
6/14/2018 22:30	WOL	WOL	Y	
6/14/2018 23:00	WOL	WOL	Y	
6/14/2018 23:30	WOL	WOL	Y	
6/14/2018 24:00	WOL	WOL	Y	
6/14/2018 24:30	WOL	WOL	Y	
6/14/2018 25:00	WOL	WOL	Y	
6/14/2018 25:30	WOL	WOL	Y	
6/14/2018 26:00	WOL	WOL	Y	
6/14/2018 26:30	WOL	WOL	Y	
6/14/2018 27:00	WOL	WOL	Y	
6/14/2018 27:30	WOL	WOL	Y	
6/14/2018 28:00	WOL	WOL	Y	
6/14/2018 28:30	WOL	WOL	Y	
6/14/2018 29:00	WOL	WOL	Y	
6/14/2018 29:30	WOL	WOL	Y	
6/14/2018 30:00	WOL	WOL	Y	
6/14/2018 30:30	WOL	WOL	Y	
6/14/2018 31:00	WOL	WOL	Y	
6/14/2018 31:30	WOL	WOL	Y	
6/14/2018 32:00	WOL	WOL	Y	
6/14/2018 32:30	WOL	WOL	Y	
6/14/2018 33:00	WOL	WOL	Y	
6/14/2018 33:30	WOL	WOL	Y	
6/14/2018 34:00	WOL	WOL	Y	
6/14/2018 34:30	WOL	WOL	Y	
6/14/2018 35:00	WOL	WOL	Y	
6/14/2018 35:30	WOL	WOL	Y	
6/14/2018 36:00	WOL	WOL	Y	
6/14/2018 36:30	WOL	WOL	Y	
6/14/2018 37:00	WOL	WOL	Y	
6/14/2018 37:30	WOL	WOL	Y	
6/14/2018 38:00	WOL	WOL	Y	
6/14/2018 38:30	WOL	WOL	Y	
6/14/2018 39:00	WOL	WOL	Y	
6/14/2018 39:30	WOL	WOL	Y	
6/14/2018 40:00	WOL	WOL	Y	
6/14/2018 40:30	WOL	WOL	Y	
6/14/2018 41:00	WOL	WOL	Y	
6/14/2018 41:30	WOL	WOL	Y	
6/14/2018 42:00	WOL	WOL	Y	
6/14/2018 42:30	WOL	WOL	Y	
6/14/2018 43:00	WOL	WOL	Y	
6/14/2018 43:30	WOL	WOL	Y	
6/14/2018 44:00	WOL	WOL	Y	
6/14/2018 44:30	WOL	WOL	Y	
6/14/2018 45:00	WOL	WOL	Y	
6/14/2018 45:30	WOL	WOL	Y	
6/14/2018 46:00	WOL	WOL	Y	
6/14/2018 46:30	WOL	WOL	Y	
6/14/2018 47:00	WOL	WOL	Y	
6/14/2018 47:30	WOL	WOL	Y	
6/14/2018 48:00	WOL	WOL	Y	
6/14/2018 48:30	WOL	WOL	Y	
6/14/2018 49:00	WOL	WOL	Y	
6/14/2018 49:30	WOL	WOL	Y	
6/14/2018 50:00	WOL	WOL	Y	
6/14/2018 50:30	WOL	WOL	Y	
6/14/2018 51:00	WOL	WOL	Y	
6/14/2018 51:30	WOL	WOL	Y	
6/14/2018 52:00	WOL	WOL	Y	
6/14/2018 52:30	WOL	WOL	Y	
6/14/2018 53:00	WOL	WOL	Y	
6/14/2018 53:30	WOL	WOL	Y	
6/14/2018 54:00	WOL	WOL	Y	
6/14/2018 54:30	WOL	WOL	Y	
6/14/2018 55:00	WOL	WOL	Y	
6/14/2018 55:30	WOL	WOL	Y	
6/14/2018 56:00	WOL	WOL	Y	
6/14/2018 56:30	WOL	WOL	Y	
6/14/2018 57:00	WOL	WOL	Y	

[illegible]

Date	Generation 1	Generation 2	Production?	Consumption
	Operation Time (sec)	Operation Time (sec)		
4/30/2018 7:00	3000	3000	F	
4/30/2018 8:00	3000	3000	F	
4/30/2018 9:00	3000	3000	F	
4/30/2018 10:00	3000	3000	F	
4/30/2018 11:00	3000	3000	F	
4/30/2018 12:00	3000	3000	F	
4/30/2018 13:00	3000	3000	F	
4/30/2018 14:00	3000	3000	F	
4/30/2018 15:00	3000	3000	F	
4/30/2018 16:00	3000	3000	F	
4/30/2018 17:00	3000	3000	F	
4/30/2018 18:00	3000	3000	F	
4/30/2018 19:00	3000	3000	F	
4/30/2018 20:00	3000	3000	F	
4/30/2018 21:00	3000	3000	F	
4/30/2018 22:00	3000	3000	F	
4/30/2018 23:00	3000	3000	F	
5/1/2018 0:00	3000	3000	F	
5/1/2018 1:00	3000	3000	F	
5/1/2018 2:00	3000	3000	F	
5/1/2018 3:00	3000	3000	F	
5/1/2018 4:00	3000	3000	F	
5/1/2018 5:00	3000	3000	F	
5/1/2018 6:00	3000	3000	F	
5/1/2018 7:00	3000	3000	F	
5/1/2018 8:00	3000	3000	F	
5/1/2018 9:00	3000	3000	F	
5/1/2018 10:00	3000	3000	F	
5/1/2018 11:00	3000	3000	F	
5/1/2018 12:00	3000	3000	F	
5/1/2018 13:00	3000	3000	F	
5/1/2018 14:00	3000	3000	F	
5/1/2018 15:00	3000	3000	F	
5/1/2018 16:00	3000	3000	F	
5/1/2018 17:00	3000	3000	F	
5/1/2018 18:00	3000	3000	F	
5/1/2018 19:00	3000	3000	F	
5/1/2018 20:00	3000	3000	F	
5/1/2018 21:00	3000	3000	F	
5/1/2018 22:00	3000	3000	F	
5/1/2018 23:00	3000	3000	F	
5/2/2018 0:00	3000	3000	F	
5/2/2018 1:00	3000	3000	F	
5/2/2018 2:00	3000	3000	F	
5/2/2018 3:00	3000	3000	F	
5/2/2018 4:00	3000	3000	F	
5/2/2018 5:00	3000	3000	F	
5/2/2018 6:00	3000	3000	F	
5/2/2018 7:00	3000	3000	F	
5/2/2018 8:00	3000	3000	F	
5/2/2018 9:00	3000	3000	F	
5/2/2018 10:00	3000	3000	F	
5/2/2018 11:00	3000	3000	F	
5/2/2018 12:00	3000	3000	F	
5/2/2018 13:00	3000	3000	F	
5/2/2018 14:00	3000	3000	F	
5/2/2018 15:00	3000	3000	F	
5/2/2018 16:00	3000	3000	F	
5/2/2018 17:00	3000	3000	F	
5/2/2018 18:00	3000	3000	F	
5/2/2018 19:00	3000	3000	F	
5/2/2018 20:00	3000	3000	F	
5/2/2018 21:00	3000	3000	F	
5/2/2018 22:00	3000	3000	F	
5/2/2018 23:00	3000	3000	F	
5/3/2018 0:00	3000	3000	F	
5/3/2018 1:00	3000	3000	F	
5/3/2018 2:00	3000	3000	F	
5/3/2018 3:00	3000	3000	F	
5/3/2018 4:00	3000	3000	F	
5/3/2018 5:00	3000	3000	F	
5/3/2018 6:00	3000	3000	F	
5/3/2018 7:00	3000	3000	F	
5/3/2018 8:00	3000	3000	F	
5/3/2018 9:00	3000	3000	F	
5/3/2018 10:00	3000	3000	F	
5/3/2018 11:00	3000	3000	F	
5/3/2018 12:00	3000	3000	F	
5/3/2018 13:00	3000	3000		

[illegible]

Time	Combustion Time (sec)	Combustion Rate (mm)	Production	Comment
5/1/2018 1:00	1000	500	Y	
5/1/2018 1:05	1000	500	Y	
5/1/2018 1:10	1000	500	Y	
5/1/2018 1:15	1000	500	Y	
5/1/2018 1:20	1000	500	Y	
5/1/2018 1:25	1000	500	Y	
5/1/2018 1:30	1000	500	Y	
5/1/2018 1:35	1000	500	Y	
5/1/2018 1:40	1000	500	Y	
5/1/2018 1:45	1000	500	Y	
5/1/2018 1:50	1000	500	Y	
5/1/2018 1:55	1000	500	Y	
5/1/2018 2:00	1000	500	Y	
5/1/2018 2:05	1000	500	Y	
5/1/2018 2:10	1000	500	Y	
5/1/2018 2:15	1000	500	Y	
5/1/2018 2:20	1000	500	Y	
5/1/2018 2:25	1000	500	Y	
5/1/2018 2:30	1000	500	Y	
5/1/2018 2:35	1000	500	Y	
5/1/2018 2:40	1000	500	Y	
5/1/2018 2:45	1000	500	Y	
5/1/2018 2:50	1000	500	Y	
5/1/2018 2:55	1000	500	Y	
5/1/2018 3:00	1000	500	Y	
5/1/2018 3:05	1000	500	Y	
5/1/2018 3:10	1000	500	Y	
5/1/2018 3:15	1000	500	Y	
5/1/2018 3:20	1000	500	Y	
5/1/2018 3:25	1000	500	Y	
5/1/2018 3:30	1000	500	Y	
5/1/2018 3:35	1000	500	Y	
5/1/2018 3:40	1000	500	Y	
5/1/2018 3:45	1000	500	Y	
5/1/2018 3:50	1000	500	Y	
5/1/2018 3:55	1000	500	Y	
5/1/2018 4:00	1000	500	Y	
5/1/2018 4:05	1000	500	Y	
5/1/2018 4:10	1000	500	Y	
5/1/2018 4:15	1000	500	Y	
5/1/2018 4:20	1000	500	Y	
5/1/2018 4:25	1000	500	Y	
5/1/2018 4:30	1000	500	Y	
5/1/2018 4:35	1000	500	Y	
5/1/2018 4:40	1000	500	Y	
5/1/2018 4:45	1000	500	Y	
5/1/2018 4:50	1000	500	Y	
5/1/2018 4:55	1000	500	Y	
5/1/2018 5:00	1000	500	Y	
5/1/2018 5:05	1000	500	Y	
5/1/2018 5:10	1000	500	Y	
5/1/2018 5:15	1000	500	Y	
5/1/2018 5:20	1000	500	Y	
5/1/2018 5:25	1000	500	Y	
5/1/2018 5:30	1000	500	Y	
5/1/2018 5:35	1000	500	Y	
5/1/2018 5:40	1000	500	Y	
5/1/2018 5:45	1000	500	Y	
5/1/2018 5:50	1000	500	Y	
5/1/2018 5:55	1000	500	Y	
5/1/2018 6:00	1000	500	Y	
5/1/2018 6:05	1000	500	Y	
5/1/2018 6:10	1000	500	Y	
5/1/2018 6:15	1000	500	Y	
5/1/2018 6:20	1000	500	Y	
5/1/2018 6:25	1000	500	Y	
5/1/2018 6:30	1000	500	Y	
5/1/2018 6:35	1000	500	Y	
5/1/2018 6:40	1000	500	Y	
5/1/2018 6:45	1000	500	Y	
5/1/2018 6:50	1000	500	Y	
5/1/2018 6:55	1000	500	Y	
5/1/2018 7:00	1000	500	Y	
5/1/2018 7:05	1000	500	Y	
5/1/2018 7:10	1000	500	Y	
5/1/2018 7:15	1000	500	Y	
5/1/2018 7:20	1000	500	Y	
5/1/2018 7:25	1000	500	Y	
5/1/2018 7:30	1000	500	Y	
5/1/2018 7:35	1000	500	Y	
5/1/2018 7:40	1000			

[illegible]

VORE RANCH 88-69-S A PAD

Date	Combiner 1 Deposition Time (sec)	Combiner 2 Operation Time (sec)	Production?	Comment
5/25/2018 10:00	1000	1000	F	
5/25/2018 10:05	1000	1000	F	
5/25/2018 10:10	1000	1000	F	
5/25/2018 10:15	1000	1000	F	
5/25/2018 10:20	1000	1000	F	
5/25/2018 10:25	1000	1000	F	
5/25/2018 10:30	1000	1000	F	
5/25/2018 10:35	1000	1000	F	
5/25/2018 10:40	1000	1000	F	
5/25/2018 10:45	1000	1000	F	
5/25/2018 10:50	1000	1000	F	
5/25/2018 10:55	1000	1000	F	
5/25/2018 11:00	1000	1000	F	
5/25/2018 11:05	1000	1000	F	
5/25/2018 11:10	1000	1000	F	
5/25/2018 11:15	1000	1000	F	
5/25/2018 11:20	1000	1000	F	
5/25/2018 11:25	1000	1000	F	
5/25/2018 11:30	1000	1000	F	
5/25/2018 11:35	1000	1000	F	
5/25/2018 11:40	1000	1000	F	
5/25/2018 11:45	1000	1000	F	
5/25/2018 11:50	1000	1000	F	
5/25/2018 11:55	1000	1000	F	
5/25/2018 12:00	1000	1000	F	
5/25/2018 12:05	1000	1000	F	
5/25/2018 12:10	1000	1000	F	
5/25/2018 12:15	1000	1000	F	
5/25/2018 12:20	1000	1000	F	
5/25/2018 12:25	1000	1000	F	
5/25/2018 12:30	1000	1000	F	
5/25/2018 12:35	1000	1000	F	
5/25/2018 12:40	1000	1000	F	
5/25/2018 12:45	1000	1000	F	
5/25/2018 12:50	1000	1000	F	
5/25/2018 12:55	1000	1000	F	
5/25/2018 13:00	1000	1000	F	
5/25/2018 13:05	1000	1000	F	
5/25/2018 13:10	1000	1000	F	
5/25/2018 13:15	1000	1000	F	
5/25/2018 13:20	1000	1000	F	
5/25/2018 13:25	1000	1000	F	
5/25/2018 13:30	1000	1000	F	
5/25/2018 13:35	1000	1000	F	
5/25/2018 13:40	1000	1000	F	
5/25/2018 13:45	1000	1000	F	
5/25/2018 13:50	1000	1000	F	
5/25/2018 13:55	1000	1000	F	
5/25/2018 14:00	1000	1000	F	
5/25/2018 14:05	1000	1000	F	
5/25/2018 14:10	1000	1000	F	
5/25/2018 14:15	1000	1000	F	
5/25/2018 14:20	1000	1000	F	
5/25/2018 14:25	1000	1000	F	
5/25/2018 14:30	1000	1000	F	
5/25/2018 14:35	1000	1000	F	
5/25/2018 14:40	1000	1000	F	
5/25/2018 14:45	1000	1000	F	
5/25/2018 14:50	1000	1000	F	
5/25/2018 14:55	1000	1000	F	
5/25/2018 15:00	1000	1000	F	
5/25/2018 15:05	1000	1000	F	
5/25/2018 15:10	1000	1000	F	
5/25/2018 15:15	1000	1000	F	
5/25/2018 15:20	1000	1000	F	
5/25/2018 15:25	1000	1000	F	
5/25/2018 15:30	1000	1000	F	
5/25/2018 15:35	1000	1000	F	
5/25/2018 15:40	1000	1000	F	
5/25/2018 15:45	1000	1000	F	
5/25/2018 15:50	1000	1000	F	
5/25/2018 15:55	1000	1000	F	
5/25/2018 16:00	1000	1000	F	
5/25/2018 16:05	1000	1000	F	
5/25/2018 16:10	1000	1000	F	
5/25/2018 16:15	1000	1000	F	
5/25/2018 16:20	1000	1000	F	
5/25/2018 16:25	1000	1000	F	
5/25/2018 16:30	1000	1000	F	
5/25/2018 16:35	1000	1000	F	
5/25/2018 16:40	1000	1000	F	
5/25/2018 16:45	1000	1000	F	
5/25/2018 16:50	1000	1000	F	
5/25/2018 16:55	1000	1000	F	
5/25/2018 17:00	1000	1000	F	
5/25/2018 17:05	1000	1000	F	
5/25/2018 17:10	1000	1000	F	
5/25/2018 17:15	1000	1000	F	
5/25/2018 17:20	1000	1000	F	
5/25/2018 17:25	1000	1000	F	
5/25/2018 17:30	1000	1000	F	
5/25/2018 17:35	1000	1000	F	
5/25/2018 17:40	1000	1000	F	
5/25/2018 17:45	1000	1000	F	
5/25/2018 17:50	1000	1000	F	
5/25/2018 17:55	1000	1000	F	
5/25/2018 18:00	1000	1000	F	
5/25/2018 18:05	1000	1000	F	
5/25/2018 18:10	1000	1000	F	
5/25/2018 18:15	1000	1000	F	
5/25/2018 18:20	1000	1000	F	
5/25/2018 18:25	1000	1000	F	
5/25/2018 18:30	1000	1000	F	
5/25/2018 18:35	1000	1000	F	
5/25/2018 18:40	1000	1000	F	
5/25/2018 18:45	1000	1000	F	
5/25/2018 18:50	1000	1000	F	
5/25/2018 18:55	1000	1000	F	
5/25/2018 19:00	1000	1000	F	
5/25/2018 19:05	1000	1000	F	
5/25/2018 19:10	1000	1000	F	
5/25/2018 19:15	1000	1000	F	
5/25/2018 19:20	1000	1000	F	
5/25/2018 19:25	1000	1000	F	
5/25/2018 19:30	1000	1000	F	
5/25/2018 19:35	1000	1000	F	
5/25/2018 19:40	1000	1000	F	
5/25/2018 19:45	1000	1000	F	
5/25/2018 19:50	1000	1000	F	
5/25/2018 19:55	1000	1000	F	
5/25/2018 20:00	1000	1000	F	
5/25/2018 20:05	1000	1000	F	
5/25/2018 20:10	1000	1000	F	
5/25/2018 20:15	1000	1000	F	
5/25/2018 20:20	1000	1000	F	
5/25/2018 20:25	1000	1000	F	
5/25/2018 20:30	1000	1000	F	
5/25/2018 20:35	1000	1000	F	
5/25/2018 20:40	1000	1000	F	
5/25/2018 20:45	1000	1000	F	
5/25/2018 20:50	1000	1000	F	
5/25/2018 20:55	1000	1000	F	
5/25/2018 21:00	1000	1000	F	
5/25/2018 21:05	1000	1000	F	
5/25/2018 21:10	1000	1000	F	
5/25/2018 21:15	1000	1000	F	
5/25/2018 21:20	1000	1000	F	
5/25/2018 21:25	1000	1000	F	
5/25/2018 21:30	1000	1000	F	
5/25/2018 21:35	1000	1000	F	
5/25/2018 21:40	1000	1000	F	
5/25/2018 21:45	1000	1000	F	
5/25/2018 21:50	1000	1000	F	
5/25/2018 21:55	1000	1000	F	
5/25/2018 22:00	1000	1000	F	
5/25/2018 22:05	1000	1000	F	
5/25/2018 22:10	1000	1000	F	
5/25/2018 22:15	1000	1000	F	
5/25/2018 22:20	1000	1000	F	
5/25/2018 22:25	1000	1000	F	
5/25/2018 22:30	1000	1000	F	
5/25/2018 22:35	1000	1000	F	
5/25/2018 22:40	1000	1000	F	
5/25/2018 22:45	1000	1000	F	
5/25/2018 22:50	1000	1000	F	
5/25/2018 22:55	1000	1000	F	
5/25/2018 23:00	1000	1000	F	
5/25/2018 23:05	1000	1000	F	
5/25/2018 23:10	1000	1000	F	
5/25/2018 23:15	1000	1000	F	
5/25/2018 23:20	1000	1000	F	
5/25/2018 23:25	1000	1000	F	
5/25/2018 23:30	1000	1000	F	
5/25/2018 23:35	1000	1000	F	
5/25/2018 23:40	1000	1000	F	
5/25/2018 23:45	1000	1000	F	
5/25/2018 23:50	1000	1000	F	
5/25/2018 23:55	1000	1000	F	
5/25/2018 24:00	1000	1000	F	

FORM BANCN 33-69-5 A PAD

[illegible]

Date	Combinator 1 Operation Time (min)	Combinator 2 Operation Time (min)	Product(s)	Comment
6/4/2018 15:00	1600	1600	✓	
6/4/2018 16:00	1600	1600	✓	
6/4/2018 17:00	1600	1600	✓	
6/4/2018 18:00	1600	1600	✓	
6/4/2018 19:00	1600	1600	✓	
6/4/2018 20:00	1600	1600	✓	
6/4/2018 21:00	1600	1600	✓	
6/4/2018 22:00	1600	1600	✓	
6/4/2018 23:00	1600	1600	✓	
6/5/2018 00:00	1600	1600	✓	
6/5/2018 1:00	1600	1600	✓	
6/5/2018 2:00	1600	1600	✓	
6/5/2018 3:00	1600	1600	✓	
6/5/2018 4:00	1600	1600	✓	
6/5/2018 5:00	1600	1600	✓	
6/5/2018 6:00	1600	1600	✓	
6/5/2018 7:00	1600	1600	✓	
6/5/2018 8:00	1600	1600	✓	
6/5/2018 9:00	1600	1600	✓	
6/5/2018 10:00	1600	1600	✓	
6/5/2018 11:00	1600	1600	✓	
6/5/2018 12:00	1600	1600	✓	
6/5/2018 13:00	1600	1600	✓	
6/5/2018 14:00	1600	1600	✓	
6/5/2018 15:00	1600	1600	✓	
6/5/2018 16:00	1600	1600	✓	
6/5/2018 17:00	1600	1600	✓	
6/5/2018 18:00	1600	1600	✓	
6/5/2018 19:00	1600	1600	✓	
6/5/2018 20:00	1600	1600	✓	
6/5/2018 21:00	1600	1600	✓	
6/5/2018 22:00	1600	1600	✓	
6/5/2018 23:00	1600	1600	✓	
6/6/2018 00:00	1600	1600	✓	
6/6/2018 1:00	1600	1600	✓	
6/6/2018 2:00	1600	1600	✓	
6/6/2018 3:00	1600	1600	✓	
6/6/2018 4:00	1600	1600	✓	
6/6/2018 5:00	1600	1600	✓	
6/6/2018 6:00	1600	1600	✓	
6/6/2018 7:00	1600	1600	✓	
6/6/2018 8:00	1600	1600	✓	
6/6/2018 9:00	1600	1600	✓	
6/6/2018 10:00	1600	1600	✓	
6/6/2018 11:00	1600	1600	✓	
6/6/2018 12:00	1600	1600	✓	
6/6/2018 13:00	1600	1600	✓	
6/6/2018 14:00	1600	1600	✓	
6/6/2018 15:00	1600	1600	✓	
6/6/2018 16:00	1600	1600	✓	
6/6/2018 17:00	1600	1600	✓	
6/6/2018 18:00	1600	1600	✓	
6/6/2018 19:00	1600	1600	✓	
6/6/2018 20:00	1600	1600	✓	
6/6/2018 21:00	1600	1600	✓	
6/6/2018 22:00	1600	1600	✓	
6/6/2018 23:00	1600	1600	✓	
6/7/2018 00:00	1600	1600	✓	
6/7/2018 1:00	1600	1600	✓	
6/7/2018 2:00	1600	1600	✓	
6/7/2018 3:00	1600	1600	✓	
6/7/2018 4:00	1600	1600	✓	
6/7/2018 5:00	1600	1600	✓	
6/7/2018 6:00	1600	1600	✓	
6/7/2018 7:00	1600	1600	✓	
6/7/2018 8:00	1600	1600	✓	
6/7/2018 9:00	1600	1600	✓	
6/7/2018 10:00	1600	1600	✓	
6/7/2018 11:00	1600	1600	✓	
6/7/2018 12:00	1600	1600	✓	
6/7/2018 13:00	1600	1600	✓	
6/7/2018 14:00	1600	1600	✓	
6/7/2018 15:00	1600	1600	✓	
6/7/2018 16:00	1600	1600	✓	
6/7/2018 17:00	1600	1600	✓	
6/7/2018 18:00	1600	1600	✓	
6/7/2018 19:00	1600	1600	✓	
6/7/2018 20:00	1600	1600	✓</	

Year	Operation 1 Date (dd)	Operation 2 Date (dd)	Production /	Comment
6/8/2018 1:00	-	0603	Y	
6/9/2018 2:00	-	0603	Y	
6/9/2018 3:00	-	0603	Y	
6/9/2018 4:00	-	0603	Y	
6/9/2018 5:00	-	0603	Y	
6/9/2018 6:00	-	0603	X	
6/9/2018 7:00	-	0603	Y	
6/9/2018 8:00	-	0603	Y	
6/9/2018 9:00	-	0603	Y	
6/9/2018 10:00	-	0603	Y	
6/9/2018 11:00	-	0603	Y	
6/9/2018 12:00	-	0603	Y	
6/9/2018 13:00	-	0603	Y	
6/9/2018 14:00	-	0603	Y	
6/9/2018 15:00	-	0603	Y	
6/9/2018 16:00	-	0603	Y	
6/9/2018 17:00	-	0603	Y	
6/9/2018 18:00	-	0603	Y	
6/9/2018 19:00	-	0603	Y	
6/9/2018 20:00	-	0603	Y	
6/9/2018 21:00	-	0603	Y	
6/9/2018 22:00	-	0603	Y	
6/9/2018 23:00	-	0603	Y	
6/10/2018 0:00	-	0603	Y	
6/10/2018 1:00	-	0603	Y	
6/10/2018 2:00	-	0603	Y	
6/10/2018 3:00	-	0603	Y	
6/10/2018 4:00	-	0603	Y	
6/10/2018 5:00	-	0603	Y	
6/10/2018 6:00	-	0603	Y	
6/10/2018 7:00	-	0603	Y	
6/10/2018 8:00	-	0603	Y	
6/10/2018 9:00	-	0603	Y	
6/10/2018 10:00	-	0603	Y	
6/10/2018 11:00	-	0603	Y	
6/10/2018 12:00	-	0603	Y	
6/10/2018 13:00	-	0603	Y	
6/10/2018 14:00	-	0603	Y	
6/10/2018 15:00	-	0603	Y	
6/10/2018 16:00	-	0603	Y	
6/10/2018 17:00	-	0603	Y	
6/10/2018 18:00	-	0603	Y	
6/10/2018 19:00	-	0603	Y	
6/10/2018 20:00	-	0603	Y	
6/10/2018 21:00	-	0603	Y	
6/10/2018 22:00	-	0603	Y	
6/10/2018 23:00	-	0603	Y	
6/11/2018 0:00	-	0603	Y	
6/11/2018 1:00	-	0603	Y	
6/11/2018 2:00	-	0603	Y	
6/11/2018 3:00	-	0603	Y	
6/11/2018 4:00	-	0603	Y	
6/11/2018 5:00	-	0603	Y	
6/11/2018 6:00	-	0603	Y	
6/11/2018 7:00	-	0603	Y	
6/11/2018 8:00	-	0603	Y	
6/11/2018 9:00	-	0603	Y	
6/11/2018 10:00	-	0603	Y	
6/11/2018 11:00	-	0603	Y	
6/11/2018 12:00	-	0603	Y	
6/11/2018 13:00	-	0603	Y	
6/11/2018 14:00	-	0603	Y	
6/11/2018 15:00	-	0603	Y	
6/11/2018 16:00	-	0603	Y	
6/11/2018 17:00	-	0603	Y	
6/11/2018 18:00	-	0603	Y	
6/11/2018 19:00	-	0603	Y	
6/11/2018 20:00	-	0603	Y	
6/11/2018 21:00	-	0603	Y	
6/11/2018 22:00	-	0603	Y	
6/11/2018 23:00	-	0603	Y	
6/12/2018 0:00	-	0603	Y	
6/12/2018 1:00	-	0603	Y	
6/12/2018 2:00	-	0603	Y	
6/12/2018 3:00	-	0603	Y	
6/12/2018 4:00	-	0603	Y	
6/12/2018 5:00	-	0603	Y	
6/12/2018 6:00	-	0603	Y	
6/12/2018 7:00	-	0603	Y	
6/12/2018 8:00	-	0603	Y	
6/12/2018 9:00	-	0603	Y	
6/12/2018 10:00	-	0603	Y	
6/12/2018 11:00	-	0603	Y	
6/12/2018 12:00	-</			

Date	Combinator 1 (Step count) Time (sec)	Combinator 2 (Step count) Time (sec)	Product(s)	Comment
6/13/2018 11:00	1020	2000	F	
6/13/2018 11:01	1020	2000	F	
6/13/2018 11:02	1020	2000	F	
6/13/2018 11:03	1020	2000	F	
6/13/2018 11:04	1020	2000	F	
6/13/2018 11:05	1020	2000	F	
6/13/2018 11:06	1020	2000	F	
6/13/2018 11:07	1020	2000	F	
6/13/2018 11:08	1020	2000	F	
6/13/2018 11:09	1020	2000	F	
6/13/2018 11:10	1020	2000	F	
6/13/2018 11:11	1020	2000	F	
6/13/2018 11:12	1020	2000	F	
6/13/2018 11:13	1020	2000	F	
6/13/2018 11:14	1020	2000	F	
6/13/2018 11:15	1020	2000	F	
6/13/2018 11:16	1020	2000	F	
6/13/2018 11:17	1020	2000	F	
6/13/2018 11:18	1020	2000	F	
6/13/2018 11:19	1020	2000	F	
6/13/2018 11:20	1020	2000	F	
6/13/2018 11:21	1020	2000	F	
6/13/2018 11:22	1020	2000	F	
6/13/2018 11:23	1020	2000	F	
6/13/2018 11:24	1020	2000	F	
6/13/2018 11:25	1020	2000	F	
6/13/2018 11:26	1020	2000	F	
6/13/2018 11:27	1020	2000	F	
6/13/2018 11:28	1020	2000	F	
6/13/2018 11:29	1020	2000	F	
6/13/2018 11:30	1020	2000	F	
6/13/2018 11:31	1020	2000	F	
6/13/2018 11:32	1020	2000	F	
6/13/2018 11:33	1020	2000	F	
6/13/2018 11:34	1020	2000	F	
6/13/2018 11:35	1020	2000	F	
6/13/2018 11:36	1020	2000	F	
6/13/2018 11:37	1020	2000	F	
6/13/2018 11:38	1020	2000	F	
6/13/2018 11:39	1020	2000	F	
6/13/2018 11:40	1020	2000	F	
6/13/2018 11:41	1020	2000	F	
6/13/2018 11:42	1020	2000	F	
6/13/2018 11:43	1020	2000	F	
6/13/2018 11:44	1020	2000	F	
6/13/2018 11:45	1020	2000	F	
6/13/2018 11:46	1020	2000	F	
6/13/2018 11:47	1020	2000	F	
6/13/2018 11:48	1020	2000	F	
6/13/2018 11:49	1020	2000	F	
6/13/2018 11:50	1020	2000	F	
6/13/2018 11:51	1020	2000	F	
6/13/2018 11:52	1020	2000	F	
6/13/2018 11:53	1020	2000	F	
6/13/2018 11:54	1020	2000	F	
6/13/2018 11:55	1020	2000	F	
6/13/2018 11:56	1020	2000	F	
6/13/2018 11:57	1020	2000	F	
6/13/2018 11:58	1020	2000	F	
6/13/2018 11:59	1020	2000	F	
6/13/2018 12:00	1020	2000	F	
6/13/2018 12:01	1020	2000	F	
6/13/2018 12:02	1020	2000	F	
6/13/2018 12:03	1020	2000	F	
6/13/2018 12:04	1020	2000	F	
6/13/2018 12:05	1020	2000	F	
6/13/2018 12:06	1020	2000	F	
6/13/2018 12:07	1020	2000	F	
6/13/2018 12:08	1020	2000	F	
6/13/2018 12:09	1020	2000	F	
6/13/2018 12:10	1020	2000	F	
6/13/2018 12:11	1020	2000	F	
6/13/2018 12:12	1020	2000	F	
6/13/2018 12:13	1020	2000	F	
6/13/2018 12:14	1020	2000	F	
6/13/2018 12:15	1020	2000	F	
6/13/2018 12:16	1020	2000	F	
6/13/2				

[illegible]

Date	Generator 1 Output (MW)	Generator 2 Output (MW)	Production/ Total (MW)	Consumption
8/2/2018 7:04	1517	2000	3517	F
8/2/2018 7:05	1517	2000	3517	F
8/2/2018 7:06	1517	2000	3517	F
8/2/2018 7:07	1517	2000	3517	F
8/2/2018 7:08	1517	2000	3517	F
8/2/2018 7:09	1517	2000	3517	F
8/2/2018 7:10	1517	2000	3517	F
8/2/2018 7:11	1517	2000	3517	F
8/2/2018 7:12	1517	2000	3517	F
8/2/2018 7:13	1517	2000	3517	F
8/2/2018 7:14	1517	2000	3517	F
8/2/2018 7:15	1517	2000	3517	F
8/2/2018 7:16	1517	2000	3517	F
8/2/2018 7:17	1517	2000	3517	F
8/2/2018 7:18	1517	2000	3517	F
8/2/2018 7:19	1517	2000	3517	F
8/2/2018 7:20	1517	2000	3517	F
8/2/2018 7:21	1517	2000	3517	F
8/2/2018 7:22	1517	2000	3517	F
8/2/2018 7:23	1517	2000	3517	F
8/2/2018 7:24	1517	2000	3517	F
8/2/2018 7:25	1517	2000	3517	F
8/2/2018 7:26	1517	2000	3517	F
8/2/2018 7:27	1517	2000	3517	F
8/2/2018 7:28	1517	2000	3517	F
8/2/2018 7:29	1517	2000	3517	F
8/2/2018 7:30	1517	2000	3517	F
8/2/2018 7:31	1517	2000	3517	F
8/2/2018 7:32	1517	2000	3517	F
8/2/2018 7:33	1517	2000	3517	F
8/2/2018 7:34	1517	2000	3517	F
8/2/2018 7:35	1517	2000	3517	F
8/2/2018 7:36	1517	2000	3517	F
8/2/2018 7:37	1517	2000	3517	F
8/2/2018 7:38	1517	2000	3517	F
8/2/2018 7:39	1517	2000	3517	F
8/2/2018 7:40	1517	2000	3517	F
8/2/2018 7:41	1517	2000	3517	F
8/2/2018 7:42	1517	2000	3517	F
8/2/2018 7:43	1517	2000	3517	F
8/2/2018 7:44	1517	2000	3517	F
8/2/2018 7:45	1517	2000	3517	F
8/2/2018 7:46	1517	2000	3517	F
8/2/2018 7:47	1517	2000	3517	F
8/2/2018 7:48	1517	2000	3517	F
8/2/2018 7:49	1517	2000	3517	F
8/2/2018 7:50	1517	2000	3517	F
8/2/2018 7:51	1517	2000	3517	F
8/2/2018 7:52	1517	2000	3517	F
8/2/2018 7:53	1517	2000	3517	F
8/2/2018 7:54	1517	2000	3517	F
8/2/2018 7:55	1517	2000	3517	F
8/2/2018 7:56	1517	2000	3517	F
8/2/2018 7:57	1517	2000	3517	F
8/2/2018 7:58	1517	2000	3517	F
8/2/2018 7:59	1517	2000	3517	F
8/2/2018 8:00	1517	2000	3517	F
8/2/2018 8:01	1517	2000	3517	F
8/2/2018 8:02	1517	2000	3517	F
8/2/2018 8:03	1517	2000	3517	F
8/2/2018 8:04	1517	2000	3517	F
8/2/2018 8:05	1517	2000	3517	F
8/2/2018 8:06	1517	2000	3517	F
8/2/2018 8:07	1517	2000	3517	F
8/2/2018 8:08	1517	2000	3517	F
8/2/2018 8:09	1517	2000	3517	F
8/2/2018 8:10	1517	2000	3517	F
8/2/2018 8:11	1517	2000	3517	F
8/2/2018 8:12	1517	2000	3517	F
8/2/2018 8:13	1517	2000	3517	F
8/2/2018 8:14	1517	2000	3517	F
8/2/2018 8:15	1517	2000	3517	F
8/2/2018 8:16	1517	2000	3517	F
8/2/2				

Date	Competition 1		Competition 2		Production 7	Comment
	Time (hrs)	Time (hrs)	Time (hrs)	Time (hrs)		
6/26/2018 1:30	1640	1600	Y			
6/26/2018 18:00	1640	1600	Y			
6/26/2018 1:20	1650	1620	Y			
6/26/2018 1:20	1640	1600	Y			
6/26/2018 1:20	1650	1620	Y			
6/26/2018 2:20	1660	1600	Y			
6/26/2018 2:20	1660	1600	Y			
6/27/2018 0:30	1650	1620	Y			
6/27/2018 1:30	1660	1600	Y			
6/27/2018 2:30	1670	1620	Y			
6/27/2018 3:30	1660	1600	Y			
6/27/2018 4:30	1660	1620	Y			
6/27/2018 5:30	1660	1600	Y			
6/27/2018 6:30	1660	1600	Y			
6/27/2018 7:30	1670	1620	Y			
6/27/2018 8:30	1660	1600	Y			
6/27/2018 9:30	1670	1620	Y			
6/27/2018 10:30	1670	1620	Y			
6/27/2018 11:30	1660	1600	Y			
6/27/2018 12:30	1660	1600	Y			
6/27/2018 1:30	1660	1600	Y			
6/27/2018 2:30	1660	1600	Y			
6/27/2018 3:30	1660	1600	Y			
6/27/2018 4:30	1660	1600	Y			
6/27/2018 5:30	1660	1600	Y			
6/27/2018 6:30	1660	1600	Y			
6/27/2018 7:30	1660	1600	Y			
6/27/2018 8:30	1660	1600	Y			
6/27/2018 9:30	1660	1600	Y			
6/27/2018 10:30	1660	1600	Y			
6/27/2018 11:30	1660	1600	Y			
6/27/2018 12:30	1660	1600	Y			
6/28/2018 0:30	1660	1600	Y			
6/28/2018 1:30	1660	1600	Y			
6/28/2018 2:30	1660	1600	Y			
6/28/2018 3:30	1660	1600	Y			
6/28/2018 4:30	1660	1600	Y			
6/28/2018 5:30	1660	1600	Y			
6/28/2018 6:30	1660	1600	Y			
6/28/2018 7:30	1660	1600	Y			
6/28/2018 8:30	1660	1600	Y			
6/28/2018 9:30	1660	1600	Y			
6/28/2018 10:30	1660	1600	Y			
6/28/2018 11:30	1660	1600	Y			
6/28/2018 12:30	1660	1600	Y			
6/29/2018 0:30	1660	1600	Y			
6/29/2018 1:30	1660	1600	Y			
6/29/2018 2:30	1660	1600	Y			
6/29/2018 3:30	1660	1600	Y			
6/29/2018 4:30	1660	1600	Y			
6/29/2018 5:30	1660	1600	Y			
6/29/2018 6:30	1660	1600	Y			
6/29/2018 7:30	1660	1600	Y			
6/29/2018 8:30	1660	1600	Y			
6/29/2018 9:30	1660	1600	Y			
6/29/2018 10:30	1660	1600	Y			
6/29/2018 11:30	1660	1600	Y			
6/29/2018 12:30	1660	1600	Y			
6/30/2018 0:30	1660	1600	Y			
6/30/2018 1:30	1660	1600	Y			
6/30/2018 2:30	1660	1600	Y			
6/30/2018 3:30	1660	1600	Y			
6/30/2018 4:30	1660	1600	Y			
6/30/2018 5:30	1660	1600	Y			
6/30/2018 6:30	1660	1600	Y			
6/30/2018 7:30	1660	1600	Y			
6/30/2						

YORK RANCH SS-69-5 & PAD

Date	Compressor 1 Stage (in) Time (sec)	Compressor 2 Operation Time (sec)	Abnormalities?	Comment
7/1/2018 1:00	1400	1400	F	
7/1/2018 1:05	1390	1390	F	
7/1/2018 1:10	1420	1420	F	
7/1/2018 1:15	1390	1390	F	
7/1/2018 1:20	1400	1400	F	
7/1/2018 1:25	1400	1400	F	
7/1/2018 1:30	1400	1400	F	
7/1/2018 1:35	1400	1400	F	
7/1/2018 1:40	1400	1400	F	
7/1/2018 1:45	1400	1400	F	
7/1/2018 1:50	1400	1400	F	
7/1/2018 1:55	1400	1400	F	
7/1/2018 2:00	1400	1400	F	
7/1/2018 2:05	1400	1400	F	
7/1/2018 2:10	1400	1400	F	
7/1/2018 2:15	1400	1400	F	
7/1/2018 2:20	1400	1400	F	
7/1/2018 2:25	1400	1400	F	
7/1/2018 2:30	1400	1400	F	
7/1/2018 2:35	1400	1400	F	
7/1/2018 2:40	1400	1400	F	
7/1/2018 2:45	1400	1400	F	
7/1/2018 2:50	1400	1400	F	
7/1/2018 2:55	1400	1400	F	
7/1/2018 3:00	1400	1400	F	
7/1/2018 3:05	1400	1400	F	
7/1/2018 3:10	1400	1400	F	
7/1/2018 3:15	1400	1400	F	
7/1/2018 3:20	1400	1400	F	
7/1/2018 3:25	1400	1400	F	
7/1/2018 3:30	1400	1400	F	
7/1/2018 3:35	1400	1400	F	
7/1/2018 3:40	1400	1400	F	
7/1/2018 3:45	1400	1400	F	
7/1/2018 3:50	1400	1400	F	
7/1/2018 3:55	1400	1400	F	
7/1/2018 4:00	1400	1400	F	
7/1/2018 4:05	1400	1400	F	
7/1/2018 4:10	1400	1400	F	
7/1/2018 4:15	1400	1400	F	
7/1/2018 4:20	1400	1400	F	
7/1/2018 4:25	1400	1400	F	
7/1/2018 4:30	1400	1400	F	
7/1/2018 4:35	1400	1400	F	
7/1/2018 4:40	1400	1400	F	
7/1/2018 4:45	1400	1400	F	
7/1/2018 4:50	1400	1400	F	
7/1/2018 4:55	1400	1400	F	
7/1/2018 5:00	1400	1400	F	
7/1/2018 5:05	1400	1400	F	
7/1/2018 5:10	1400	1400	F	
7/1/2018 5:15	1400	1400	F	
7/1/2018 5:20	1400	1400	F	
7/1/2018 5:25	1400	1400	F	
7/1/2018 5:30	1400	1400	F	
7/1/2018 5:35	1400	1400	F	
7/1/2018 5:40	1400	1400	F	
7/1/2018 5:45	1400	1400	F	
7/1/2018 5:50	1400	1400	F	
7/1/2018 5:55	1400	1400	F	
7/1/2018 6:00	1400	1400	F	
7/1/2018 6:05	1400	1400	F	
7/1/2018 6:10	1400	1400	F	
7/1/2018 6:15	1400	1400	F	
7/1/2018 6:20	1400	1400	F	
7/1/2018 6:25	1400	1400	F	
7/1/2018 6:30	1400	1400	F	
7/1/2018 6:35	1400	1400	F	
7/1/2018 6:40	1400	1400	F	
7/1/2018 6:45	1400	1400	F	
7/1/2018 6:50	1400	1400	F	
7/1/2018 6:55	1400	1400	F	
7/1/2018 7:00	1400	1400	F	
7/1/2018 7:05	1400	1400	F	
7/1/2018 7:10	1400	1400	F	
7/1/2018 7:15	1400	1400	F	
7/1/2018 7:20	1400	1400	F	
7/1/2018 7:25	1400	1400	F	
7/1/2018 7:30	1400	1400	F	
7/1/2018 7:35	1400	1400	F	
7/1/2018 7:40	1400	1400	F	
7/1/2018 7:45	1400	1400	F	
7/1/2018 7:50	1400	1400	F	
7/1/2018 7:55	1400	1400	F	
7/1/2018 8:00	1400	1400	F	
7/1/2018 8:05	1400	1400	F	
7/1/2018 8:10	1400	1400	F	
7/1/2018 8:15	1400	1400	F	
7/1/2018 8:20	1400	1400	F	
7/1/2018 8:25	1400	1400	F	
7/1/2018 8:30	1400	1400	F	
7/1/2018 8:35	1400	1400	F	
7/1/2018 8:40	1400	1400	F	
7/1/2018 8:45	1400	1400	F	
7/1/2018 8:50	1400	1400	F	
7/1/2018 8:55	1400	1400	F	
7/1/2018 9:00	1400	1400	F	
7/1/2018 9:05	1400	1400	F	
7/1/2018 9:10	1400	1400	F	
7/1/2018 9:15	1400	1400	F	
7/1/2018 9:20	1400	1400	F	
7/1/2018 9:25	1400	1400	F	
7/1/2018 9:30	1400	1400	F	
7/1/2018 9:35	1400	1400	F	
7/1/2018 9:40	1400	1400	F	
7/1/2018 9:45	1400	1400	F	
7/1/2018 9:50	1400	1400	F	
7/1/2018 9:55	1400	1400	F	
7/1/2018 10:00	1400	1400	F	
7/1/2018 10:05	1400	1400	F	
7/1/2018 10:10	1400	1400	F	
7/1/2018 10:15	1400	1400	F	
7/1/2018 10:20	1400	1400	F	
7/1/2018 10:25	1400	1400	F	
7/1/2018 10:30	1400	1400	F	
7/1/2018 10:35	1400	1400	F	
7/1/2018 10:40	1400	1400	F	
7/1/2018 10:45	1400	1400	F	
7/1/2018 10:50	1400	1400	F	
7/1/2018 10:55	1400	1400	F	
7/1/2018 11:00	1400	1400	F	
7/1/2018 11:05	1400	1400	F	
7/1/2018 11:10	1400	1400	F	
7/1/2018 11:15	1400	1400	F	
7/1/2018 11:20	1400	1400	F	
7/1/2018 11:25	1400	1400	F	
7/1/2018 11:30	1400	1400	F	
7/1/2018 11:35	1400	1400	F	
7/1/2018 11:40	1400	1400	F	
7/1/2018 11:45	1400	1400	F	
7/1/2018 11:50	1400	1400	F	
7/1/2018 11:55	1400	1400	F	
7/1/2018 12:00	1400	1400	F	

YORK RANCH 33-09-5 A PAC

Base	Combustion 1 Duration Time (sec)	Combustion 2 Operation Time (sec)	Production?	Comments
25/2014 1.00	3600	3600	Y	
25/2014 1.40	3600	3600	Y	
25/2014 1.50	3600	3600	Y	
25/2014 1.60	3600	3600	Y	
25/2014 1.70	3600	3600	Y	
25/2014 1.80	3600	3600	Y	
25/2014 1.90	3600	3600	Y	
25/2014 2.00	3600	3600	Y	
25/2014 2.10	3600	3600	Y	
25/2014 2.20	3600	3600	Y	
25/2014 2.30	3600	3600	Y	
25/2014 2.40	3600	3600	Y	
25/2014 2.50	3600	3600	Y	
25/2014 2.60	3600	3600	Y	
25/2014 2.70	3600	3600	Y	
25/2014 2.80	3600	3600	Y	
25/2014 2.90	3600	3600	Y	
25/2014 3.00	3600	3600	Y	
25/2014 3.10	3600	3600	Y	
25/2014 3.20	3600	3600	Y	
25/2014 3.30	3600	3600	Y	
25/2014 3.40	3600	3600	Y	
25/2014 3.50	3600	3600	Y	
25/2014 3.60	3600	3600	Y	
25/2014 3.70	3600	3600	Y	
25/2014 3.80	3600	3600	Y	
25/2014 3.90	3600	3600	Y	
25/2014 4.00	3600	3600	Y	
25/2014 4.10	3600	3600	Y	
25/2014 4.20	3600	3600	Y	
25/2014 4.30	3600	3600	Y	
25/2014 4.40	3600	3600	Y	
25/2014 4.50	3600	3600	Y	
25/2014 4.60	3600	3600	Y	
25/2014 4.70	3600	3600	Y	
25/2014 4.80	3600	3600	Y	
25/2014 4.90	3600	3600	Y	
25/2014 5.00	3600	3600	Y	
25/2014 5.10	3600	3600	Y	
25/2014 5.20	3600	3600	Y	
25/2014 5.30	3600	3600	Y	
25/2014 5.40	3600	3600	Y	
25/2014 5.50	3600	3600	Y	
25/2014 5.60	3600	3600	Y	
25/2014 5.70	3600	3600	Y	
25/2014 5.80	3600	3600	Y	
25/2014 5.90	3600	3600	Y	
25/2014 6.00	3600	3600	Y	
25/2014 6.10	3600	3600	Y	
25/2014 6.20	3600	3600	Y	
25/2014 6.30	3600	3600	Y	
25/2014 6.40	3600	3600	Y	
25/2014 6.50	3600	3600	Y	
25/2014 6.60	3600	3600	Y	
25/2014 6.70	3600	3600	Y	
25/2014 6.80	3600	3600	Y	
25/2014 6.90	3600	3600	Y	
25/2014 7.00	3600	3600	Y	
25/2014 7.10	3600	3600	Y	
25/2014 7.20	3600	3600	Y	
25/2014 7.30	3600	3600	Y	
25/2014 7.40	3600	3600	Y	
25/2014 7.50	3600	3600	Y	
25/2014 7.60	3600	3600	Y	
25/2014 7.70	3600	3600	Y	
25/2014 7.80	3600	3600	Y	
25/2014 7.90	3600	3600	Y	
25/2014 8.00	3600	3600	Y	
25/2014 8.10	3600	3600	Y	
25/2014 8.20	3600	3600	Y	
25/2014 8.30	3600	3600	Y	
25/2014 8.40	3600	3600	Y	
25/2014 8.50	3600	3600	Y	
25/2014 8.60	3600	3600	Y	
25/2014 8.70	3600	3600	Y	
25/2014 8.80	3600	3600	Y	
25/2014 8.90	3600	3600	Y	
25/2014 9.00	3600	3600	Y	
25/2014 9.10	3600	3600	Y	
25/2014 9.20	3600	3600	Y	
25/2014 9.30	3600	3600	Y	
25/2014 9.40	3600	3600	Y	
25/2014 9.50	3600	3600	Y	
25/2014 9.60	3600	3600	Y	
25/2014 9.70	3600	3600	Y	
25/2014 9.80	3600	3600	Y	
25/2014 9.90	3600	3600	Y	
25/2014 10.00	3600	3600	Y	
25/2014 10.10	3600	3600	Y	
25/2014 10.20	3600	3600	Y	
25/2014 10.30	3600	3600	Y	
25/2014 10.40	3600	3600	Y	
25/2014 10.50	3600	3600	Y	
25/2014 10.60	3600	3600	Y	
25/2014 10.70	3600	3600	Y	
25/2014 10.80	3600	3600	Y	
25/2014 10.90	3600	3600	Y	
25/2014 11.00	3600	3600	Y	
25/2014 11.10	3600	3600	Y	
25/2014 11.20	3600	3600	Y	
25/2014 11.30	3600	3600	Y	
25/2014 11.40	3600	3600	Y	
25/2014 11.50	3600	3600	Y	
25/2014 11.60	3600	3600	Y	
25/2014 11.70	3600	3600	Y	
25/2014 11.80	3600	3600	Y	
25/2014 11.90	3600	3600	Y	
25/2014 12.00	3600	3600	Y	
25/2014 12.10	3600	3600	Y	
25/2014 12.20	3600	3600	Y	
25/2014 12.30	3600	3600	Y	
25/2014 12.40	3600	3600	Y	
25/2014 12.50	3600	3600	Y	
25/2014 12.60	3600	3600	Y	
25/2014 12.70	3600	3600	Y	
25/2014 12.80	3600	3600	Y	
25/2014 12.90	3600	3600	Y	
25/2014 13.00	3600	3600	Y	
25/2014 13.10	3600	3600	Y	
25/2014 13.20	3600	3600	Y	
25/2014 13.30	3600	3600	Y	
25/2014 13.40	3600	3600	Y	
25/2014 13.50	3600	3600	Y	
25/2014 13.60	3600	3600	Y	
25/2014 13.70	3600	3600	Y	
25/2014 13.80	3600	3600	Y	
25/2014 13.90	3600	3600	Y	
25/2014 14.00	3600	3600	Y	
25/2014 14.10	3600	3600	Y	
25/2014 14.20	3600	3600	Y	
25/2014 14.30	3600	3600	Y	
25/2014 14.40	3600	3600	Y	
25/2014 14.50	3600	3600	Y	
25/2014 14.60	3600	3600	Y	
25/2014 14.70	3600	3600	Y	
25/2014 14.80	3600	3600	Y	
25/2014 14.90	3600	3600	Y	
25/2014 15.00	3600	3600	Y	
25/2014 15.10	3600	3600	Y	
25/2014 15.20	3600	3600	Y	
25/2014 15.30	3600	3600	Y	
25/2014 15.40	3600	3600	Y	
25/2014 15.50	3600	3600	Y	
25/2014 15.60	3600	3600	Y	
25/2014 15.70	3600	3600	Y	
25/2014 15.80	3600	3600	Y	
25/2014 15.90	3600	3600	Y	
25/2014 16.00	3600	3600	Y	
25/2014 16.10	3600	3600	Y	
25/2014 16.20	3600	3600	Y	
25/2014 16.30	3600	3600	Y	
25/2014 16.40	3600	3600	Y	
25/2014 16.50	3600	3600	Y	
25/2014 16.60	3600	3600	Y	
25/2014 16.70	3600	3600	Y	
25/2014 16.80	3600	3600	Y	
25/2014 16.90	3600	3600	Y	
25/2014 17.00	3600	3600	Y	
25/2014 17.10	3600	3600	Y	
25/2014 17.20	3600	3600	Y	
25/2014 17.30	3600	3600	Y	
25/2014 17.40	3600	3600	Y	
25/2014 17.50	3600	3600	Y	
25/2014 17.60	3600	3600	Y	
25/2014 17.70	3600	3600	Y	
25/2014 17.80	3600	3600	Y	
25/2014 17.90	3600	3600	Y	
25/2014 18.00	3600	3600	Y	
25/2014 18.10	3600	3600	Y	
25/2014 18.20	3600	3600	Y	
25/2014 18.30	3600	3600	Y	
25/2014 18.40	3600	3600	Y	
25/2014 18.50	3600	3600	Y	
25/2014 18.60	3600	3600	Y	
25/2014 18.70	3600	3600	Y	
25/2014 18.80	3600	3600	Y	
25/2014 18.90	3600	3600	Y	
25/2014 19.00	3600	3600	Y	
25/2014 19.10	3600	3600	Y	
25/2014 19.20	3600	3600	Y	
25/2014 19.30	3600	3600	Y	
25/2014 19.40	3600	3600	Y	
25/2014 19.50	3600	3600	Y	
25/2014 19.60	3600	3600	Y	
25/2014 19.70	3600	3600	Y	
25/2014 19.80	3600	3600	Y	
25/2014 19.90	3600	3600	Y	
25/2014 20.00	3600	3600	Y	
25/2014 20.10	3600	3600	Y	
25/2014 20.20	3600	3600	Y	
25/2014 20.30	3600	3600	Y	
25/2014 20.40	3600	3600	Y	
25/2014 20.50	3600	3600	Y	
25/2014 20.60	3600	3600	Y	
25/2014 20.70	3600	3600	Y	
25/2014 20.80	3600	3600	Y	
25/2014 20.90	3600	3600	Y	
25/2014 21.00	3600	3600	Y	
25/2014 21.10	3600	3600	Y	
25/2014 21.20	3600	3600	Y	
25/2014 21.30	3600	3600	Y	
25/2014 21.40	3600	3600	Y	
25/2014 21.50	3600	3600	Y	
25/2014 21.60	3600	3600	Y	
25/2014 21.70	3600	3600	Y	
25/2014 21.80	3600	3600	Y	
25/2014 21.90	3600	3600	Y	
25/2014 22.00	3600	3600	Y	
25/2014 22.10	3600	3600	Y	
25/2014 22.20	3600	3600	Y	
25/2014 22.30	3600	3600	Y	
25/2014 22.40	3600	3600	Y	
25/2014 22.50	3600	3600	Y	
25/2014 22.60	3600	3600	Y	
25/2014 22.70	3600	3600	Y	
25/2014 22.80	3600	3600	Y	
25/2014 22.90	3600	3600	Y	
25/2014 23.00	3600	3600	Y	
25/2014 23.10	3600	3600	Y	
25/2014 23.20	3600	3600	Y	
25/2014 23.30	3600	3600	Y	
25/2014 23.40	3600	3600	Y	
25/2014 23.50	3600	3600	Y	
25/2014 23.60	3600	3600	Y	
25/2014 23.70	3600	3600	Y	
25/2014 23.80	3600	3600	Y	
25/2014 23.90	3600	3600	Y	
25/2014 24.00	3600	3600	Y	
25/2014 24.10	3600	3600	Y	
25/2014 24.20	3600	3600	Y	
25/2014 24.30	3600	3600	Y	
25/2014 24.40	3600	3600	Y	
25/2014 24.50	3600	3600	Y	
25/2014 24.60	3600	3600	Y	
25/2014 24.70	3600	3600	Y	
25/2014 24.80	3600	3600	Y	
25/2014 24.90	3600	3600	Y	
25/2014 25.00	3600	3600	Y	
25/2014 25.10	3600	3600	Y	
25/2014 25.20	3600	3600	Y	
25/2014 25.30	3600	3600	Y	
25/2014 25.40	3600	3600	Y	
25/2014 25.50	3600	3600	Y	
25/2014 25.60	3600	3600	Y	
25/2014 25.70	3600	3600	Y	
25/2014 25.80	3600	3600	Y	
25/2014 25.90	3600	3600	Y	
25/2014 26.00	3600	3600	Y	
25/2014				

WORE RANCH: 55-69-5 & PAD

[illegible]

YORK RANCH 33-69-5-A PAC

[illegible]

	Expenditure, \$
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[illegible]

	Cumulative
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Base	Comparison 1 Base Unit	Comparison 2 Base Unit	Productivity	Comment
2/21/2018 1:00	200	200	1	
2/21/2018 2:00	210	210	1	
2/21/2018 3:00	220	220	1	
2/21/2018 4:00	230	230	1	
2/21/2018 5:00	240	240	1	
2/21/2018 6:00	250	250	1	
2/21/2018 7:00	260	260	1	
2/21/2018 8:00	270	270	1	
2/21/2018 9:00	280	280	1	
2/21/2018 10:00	290	290	1	
2/21/2018 11:00	300	300	1	
2/21/2018 12:00	310	310	1	
2/21/2018 1:00	320	320	1	
2/21/2018 2:00	330	330	1	
2/21/2018 3:00	340	340	1	
2/21/2018 4:00	350	350	1	
2/21/2018 5:00	360	360	1	
2/21/2018 6:00	370	370	1	
2/21/2018 7:00	380	380	1	
2/21/2018 8:00	390	390	1	
2/21/2018 9:00	400	400	1	
2/21/2018 10:00	410	410	1	
2/21/2018 11:00	420	420	1	
2/21/2018 12:00	430	430	1	
2/21/2018 1:00	440	440	1	
2/21/2018 2:00	450	450	1	
2/21/2018 3:00	460	460	1	
2/21/2018 4:00	470	470	1	
2/21/2018 5:00	480	480	1	
2/21/2018 6:00	490	490	1	
2/21/2018 7:00	500	500	1	
2/21/2018 8:00	510	510	1	
2/21/2018 9:00	520	520	1	
2/21/2018 10:00	530	530	1	
2/21/2018 11:00	540	540	1	
2/21/2018 12:00	550	550	1	
2/21/2018 1:00	560	560	1	
2/21/2018 2:00	570	570	1	
2/21/2018 3:00	580	580	1	
2/21/2018 4:00	590	590	1	
2/21/2018 5:00	600	600	1	
2/21/2018 6:00	610	610	1	
2/21/2018 7:00	620	620	1	
2/21/2018 8:00	630	630	1	
2/21/2018 9:00	640	640	1	
2/21/2018 10:00	650	650	1	
2/21/2018 11:00	660	660	1	
2/21/2018 12:00	670	670	1	
2/21/2018 1:00	680	680	1	
2/21/2018 2:00	690	690	1	
2/21/2018 3:00	700	700	1	
2/21/2018 4:00	710	710	1	
2/21/2018 5:00	720	720	1	
2/21/2018 6:00	730	730	1	
2/21/2018 7:00	740	740	1	
2/21/2018 8:00	750	750	1	
2/21/2018 9:00	760	760	1	
2/21/2018 10:00	770	770	1	
2/21/2018 11:00	780	780	1	
2/21/2018 12:00	790	790	1	
2/21/2018 1:00	800	800	1	
2/21/2018 2:00	810	810	1	
2/21/2018 3:00	820	820	1	
2/21/2018 4:00	830	830	1	
2/21/2018 5:00	840	840	1	
2/21/2018 6:00	850	850	1	
2/21/2018 7:00	860	860	1	
2/21/2018 8:00	870	870	1	
2/21/2018 9:00	880	880	1	
2/21/2018 10:00	890	890	1	
2/21/2018 11:00	900	900	1	
2/21/2018 12:00	910	910	1	
2/21/2018 1:00	920	920	1	
2/21/2018 2:00	930	930	1	
2/21/2018 3:00	940	940	1	
2/21/2018 4:00	950	950	1	
2/21/2018 5:00	960	960	1	
2/21/2018 6:00	970	970	1	
2/21/2018 7:00	980	980	1	
2/21/2018 8:00	990	990	1	
2/21/2018				

YORE BANCH: 13-49-5 A FAD

Date	Operation Time (sec)	Consumption 1 Time (sec)	Production 1 Time (sec)	Consumption 2 Time (sec)
2020-01-01 10:00	1000	1000	0	0
2020-01-01 10:01	1000	1000	0	0
2020-01-01 10:02	1000	1000	0	0
2020-01-01 10:03	1000	1000	0	0
2020-01-01 10:04	1000	1000	0	0
2020-01-01 10:05	1000	1000	0	0
2020-01-01 10:06	1000	1000	0	0
2020-01-01 10:07	1000	1000	0	0
2020-01-01 10:08	1000	1000	0	0
2020-01-01 10:09	1000	1000	0	0
2020-01-01 10:10	1000	1000	0	0
2020-01-01 10:11	1000	1000	0	0
2020-01-01 10:12	1000	1000	0	0
2020-01-01 10:13	1000	1000	0	0
2020-01-01 10:14	1000	1000	0	0
2020-01-01 10:15	1000	1000	0	0
2020-01-01 10:16	1000	1000	0	0
2020-01-01 10:17	1000	1000	0	0
2020-01-01 10:18	1000	1000	0	0
2020-01-01 10:19	1000	1000	0	0
2020-01-01 10:20	1000	1000	0	0
2020-01-01 10:21	1000	1000	0	0
2020-01-01 10:22	1000	1000	0	0
2020-01-01 10:23	1000	1000	0	0
2020-01-01 10:24	1000	1000	0	0
2020-01-01 10:25	1000	1000	0	0
2020-01-01 10:26	1000	1000	0	0
2020-01-01 10:27	1000	1000	0	0
2020-01-01 10:28	1000	1000	0	0
2020-01-01 10:29	1000	1000	0	0
2020-01-01 10:30	1000	1000	0	0
2020-01-01 10:31	1000	1000	0	0
2020-01-01 10:32	1000	1000	0	0
2020-01-01 10:33	1000	1000	0	0
2020-01-01 10:34	1000	1000	0	0
2020-01-01 10:35	1000	1000	0	0
2020-01-01 10:36	1000	1000	0	0
2020-01-01 10:37	1000	1000	0	0
2020-01-01 10:38	1000	1000	0	0
2020-01-01 10:39	1000	1000	0	0
2020-01-01 10:40	1000	1000	0	0
2020-01-01 10:41	1000	1000	0	0
2020-01-01 10:42	1000	1000	0	0
2020-01-01 10:43	1000	1000	0	0
2020-01-01 10:44	1000	1000	0	0
2020-01-01 10:45	1000	1000	0	0
2020-01-01 10:46	1000	1000	0	0
2020-01-01 10:47	1000	1000	0	0
2020-01-01 10:48	1000	1000	0	0
2020-01-01 10:49	1000	1000	0	0
2020-01-01 10:50	1000	1000	0	0
2020-01-01 10:51	1000	1000	0	0
2020-01-01 10:52	1000	1000	0	0
2020-01-01 10:53	1000	1000	0	0
2020-01-01 10:54	1000	1000	0	0
2020-01-01 10:55	1000	1000	0	0
2020-01-01 10:56	1000	1000	0	0
2020-01-01 10:57	1000	1000	0	0
2020-01-01 10:58	1000	1000	0	0
2020-01-01 10:59	1000	1000	0	0
2020-01-01 11:00	1000	1000	0	0
2020-01-01 11:01	1000	1000	0	0
2020-01-01 11:02	1000	1000	0	0
2020-01-01 11:03	1000	1000	0	0
2020-01-01 11:04	1000	1000	0	0
2020-01-01 11:05	1000	1000	0	0
2020-01-01 11:06	1000	1000	0	0
2020-01-01 11:07	1000	1000	0	0
2020-01-01 11:08	1000	1000	0	0
2020-01-01 11:09	1000	1000	0	0
2020-01-01 11:10	1000	1000	0	0
2020-01-01 11:11	1000	1000	0	0
2020-01-01 11:12	1000	1000	0	0
2020-01-01 11:13	1000	1000	0	0
2020-01-01 11:14	1000	1000	0	0
2020-01-01 11:15	1000	1000	0	0
2020-01-01 11:16	1000	1000	0	0
2020-01-01 11:17	1000	1000	0	0
2020-01-01 11:18	1000	1000	0	0
2020-01-01 11:19	1000	1000	0	0
2020-01-01 11:20	1000	1000	0	0
2020-01-01 11:21	1000	1000	0	0
2020-01-01 11:22	1000	1000	0	0
2020-01-01 11:23	1000	1000	0	0
2020-01-01 11:24	1000	1000	0	0
2020-01-01 11:25	1000	1000	0	0
2020-01-01 11:26	1000	1000	0	0
2020-01-01 11:27	1000	1000	0	0
2020-01-01 11:28	1000	1000	0	0
2020-01-01 11:29	1000	1000	0	0
2020-01-01 11:30	1000	1000	0	0
2020-01-01 11:31	1000	1000	0	0
2020-01-01 11:32	1000	1000	0	0
2020-01-01 11:33	1000	1000	0	0
2020-01-01 11:34	1000	1000	0	0
2020-01-01 11:35	1000	1000	0	0
2020-01-01 11:36	1000	1000	0	0
2020-01-01 11:37	1000	1000	0	0
2020-01-01 11:38	1000	1000	0	0
2020-01-01 11:39	1000	1000	0	0
2020-01-01 11:40	1000	1000	0	0
2020-01-01 11:41	1000	1000	0	0
2020-01-01 11:42	1000	1000	0	0
2020-01-01 11:43	1000	1000	0	0
2020-01-01 11:44	1000	1000	0	0
2020-01-01 11:45	1000	1000	0	0
2020-01-01 11:46	1000	1000	0	0
2020-01-01 11:47	1000	1000	0	0
2020-01-01 11:48	1000	1000	0	0
2020-01-01 11:49	1000	1000	0	0
2020-01-01 11:50	1000	1000	0	0
2020-01-01 11:51	1000	1000	0	0
2020-01-01 11:52	1000	1000	0	0
2020-01-01 11:53	1000	1000	0	0
2020-01-01 11:54	1000	1000	0	0
2020-01-01 11:55	1000	1000	0	0
2020-01-01 11:56	1000	1000	0	0
2020-01-01 11:57	1000	1000	0	0
2020-01-01 11:58	1000	1000	0	0
2020-01-01 11:59	1000	1000	0	0
2020-01-01 12:00	1000	1000	0	0

YORK RANCH 33-69-5 A PAD

[illegible]

3. Monthly Visible Emission Inspection Records

Facility Inspection Checklist

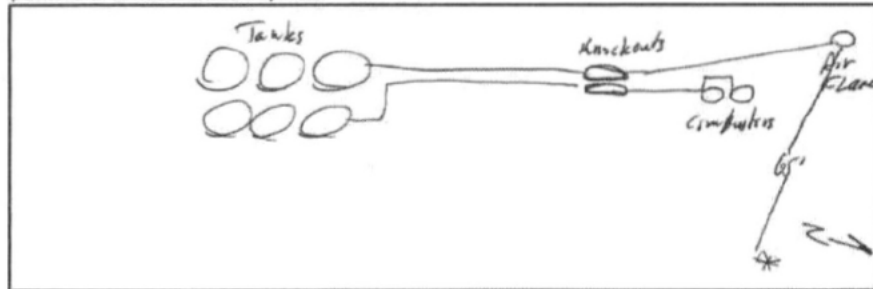
Facility Name: <i>Leifer 15-M-69 A-Rad</i>	Property Number: <i>928994</i>
Date/Time: <i>3/26/18 - 8:30pm</i>	Observer Name: <i>(b) (6)</i>

Equipment Inspection				
<p>DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.</p> <p>NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.</p>				
Smoking Equipment:				
1. Was all equipment at the facility observed to be operating smokeless?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Explanation/Corrective Action:
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
Venting Equipment:				
2. Were tank hatches observed to be latched and closed?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Explanation/Corrective Action:
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Stuck relief on production water tank #1</i>
a) If No, was a repair completed during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Replaced relief valve #1000158408</i>
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:				
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>#1000158409</i>
a) Adjustments/Repairs Made:	<i>Flare No. 5 and leaking in combustor #2. Replaced cover</i>			
Fugitive Components:				
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Closed Vent System Manual Bypass Valve:				
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a) Record car seal number observed during inspection:				

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	LeBar 15-34-69 A Pad	Property Number:	928994
Date:	3/26/18	Time:	1:10 pm
Sky Conditions:	Partly Cloudy	Wind Direction:	WNW
Precipitation:	—	Wind Speed:	11 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Air assisted Flares Compressor

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	1:10 pm	15 min. 0 sec.	0
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	1:25 pm		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	LeBar 15-34-69 A Pad	Property Number:	928994
Date:	4-26-18	Time:	1:25 pm
Observer Name:	(b) (6)		

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

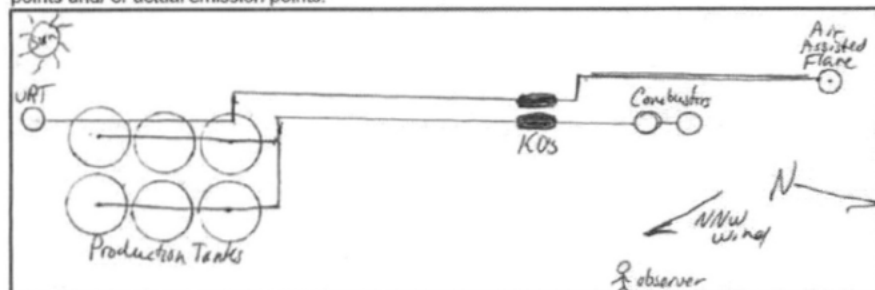
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If not repaired, contact Maintenance Planner and record SAP Notification Number:			<input type="checkbox"/>	
d) If No, list equipment smoking:				
e) If No, Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If not repaired, contact Maintenance Planner and record SAP Notification Number:				
c) If No, adjustments/repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, list equipment venting:				
b) If No, adjustments/repairs made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If No, adjustments/repairs made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Property Number:	928994
Facility Name:	LeBar 15-34-69 A Pad	Date ¹ :	4-26-18
Observer Name:	(b) (6)		
Sky Conditions:	Sunny	Wind Direction:	NNW
Precipitation:	—	Wind Speed:	8 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Air Assisted Flare

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	2:13 pm	15 min	0 sec
Record the following:			
• Initial clock time			
• Total observation time			
• Total emissions time			
• Final clock time			
End Observation	2:28 pm		

- Ensure inspections are completed at least 14 days apart.
- Ensure clock start and end times are at least 15 min duration.
- If accumulated emission time exceeds 1 min., Check for liquid reaching combustor. Check air vent for obstruction. Ensure repair is completed as soon as practicable following local procedures and document via workorder.
- Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOO Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	LeBar 15-34-69 A Pad	Property Number:	0928994
Date/Time:	5/31/18 - 7:45 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

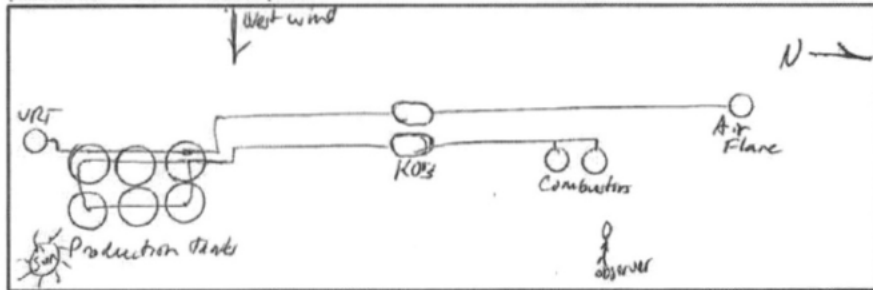
Jan 24, 2018

CHESAPEAKE ENERGY

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	
Facility Name:	Calder 5-33-64 A-Pad	Property Number:	0928994
Date:	5-30-18	Time:	1:45 pm
Sky Conditions:	Sunny	Wind Direction:	West
Precipitation:		Wind Speed:	Calder-2
Industry:	Upstream Oil and Gas	Equipment Observed:	Air Flare Compressor

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	1:46 pm	15 min, 0 sec	0 min, 0 sec
Record the following:			
• Initial clock time			
• Total observation time			
• Total emissions time			
• Final clock time			
End Observation	2:01 pm		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

Jan 24, 2018

CHESAPEAKE ENERGY

Facility Inspection Checklist

Facility Name:	Calder 5-33-64 A-Pad	Property Number:	0928994
Date/Time:	6-29-18 / 10:50 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

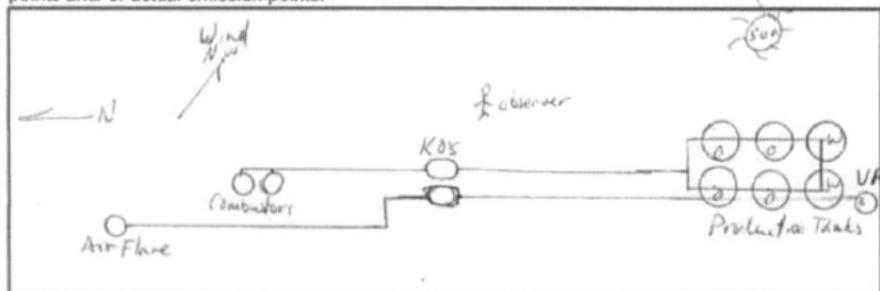
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Adjustments/Repairs Made:				Pressure Switch on South combustor
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	LeBar 15-34-69 A-Pad	Property Number:	0928774
Date:	6-29-18	Time:	11:20 am
Sky Conditions:	Sunny	Wind Direction:	2 mph S
Precipitation:		Wind Speed:	NW
Industry:	Upstream Oil and Gas	Equipment Observed:	Air-assisted flare 2 combustors

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	11:23	15 min Obs.	0 min 0 sec
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	11:38		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOO Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	LeBar 15-34-69 A-Pad	Property Number:	0928774
Date/Time:	7-30-18 / 7:30 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

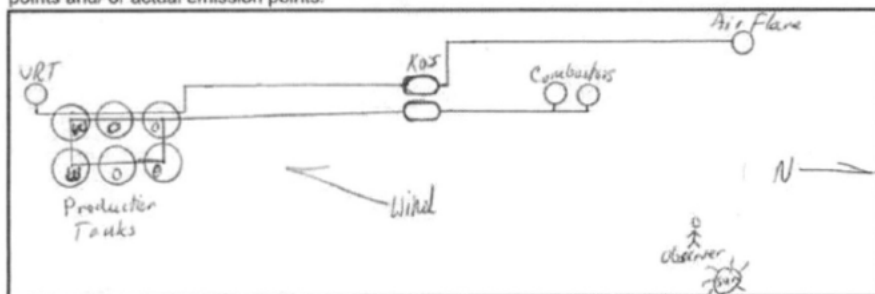
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Adjustments/Repairs Made:				South combustor shut in, repairs done and valve open
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	LeBo-K-3469 A-Pad	Property Number:	#928994
Date ¹ :	7-30-18	Time:	9:00 am
Sky Conditions:	Sunny	Wind Direction:	NNE
Precipitation:	—	Wind Speed:	0-3 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Combustors, Air Flare

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	0900	15 min 0 sec	0 min 0 sec
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	0915		

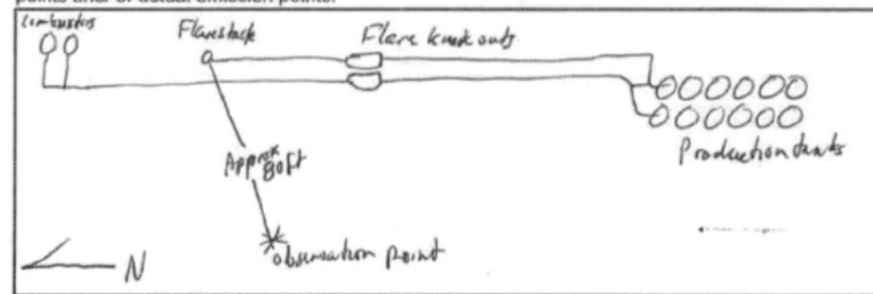
1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	York Ranch S-33-69 A-Pad	Property Number:	#912527
Date ¹ :	2-27-18	Time:	9:00 am
Sky Conditions:	Sunny	Wind Direction:	SSW
Precipitation:	—	Wind Speed:	5 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Flare Stack/Air Flare

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	9:00 am	20	0
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	9:25 am		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name: <i>York Ranch 5-37-65A</i>	Property Number: <i>#9127</i>
Date/Time: <i>1/27/18</i>	Observer Name: <i>(b) (6)</i>

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<i>Relay powder, missing 1/2" tight check remaining flange was loose</i>
a) If No, was a repair completed during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d) Adjustments/Repairs Made:				<i>Check hatches and tightened remaining flange</i>
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Facility Inspection Checklist

Facility Name: <i>York Ranch 5-37-65A</i>	Property Number: <i>#9127</i>
Date/Time: <i>1/26/18 - 10:45 am</i>	Observer Name: <i>(b) (6)</i>

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<i>Cracked hatch #9 open hatch</i>
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<i>Closed hatch #1000 158406</i>
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				<i>Closed hatch</i>
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<i>Large 24" Bypass on combustor Tightened & Bypassed #1000 158407</i>
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

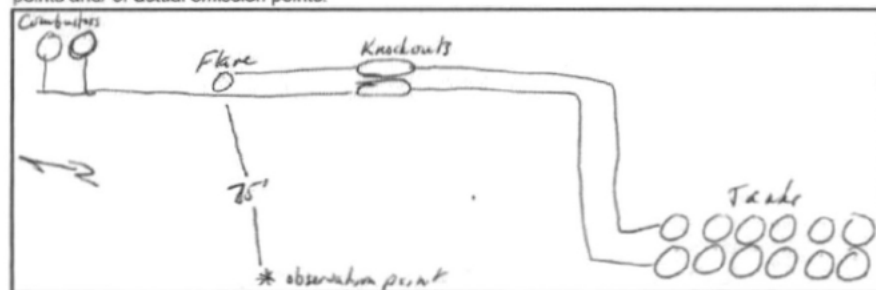
Jan 24, 2018

CHESAPEAKE ENERGY

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	Yok Ranch 5 th 69 A-1nd	Property Number:	912527
Date:	3-26-18	Time:	10:55 am
Sky Conditions:	Partly Cloudy	Wind Direction:	West
Precipitation:		Wind Speed:	6 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Air Assisted Flare

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	10:55 am	15 Min. OFF	0
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	11:10 am		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOO Monthly Observation.

Jan 24, 2018

CHESAPEAKE ENERGY

Facility Inspection Checklist

Facility Name:	Yok Ranch 5 th 69 A-1nd	Property Number:	912527
Date/Time:	4/26/18 / 10:25 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

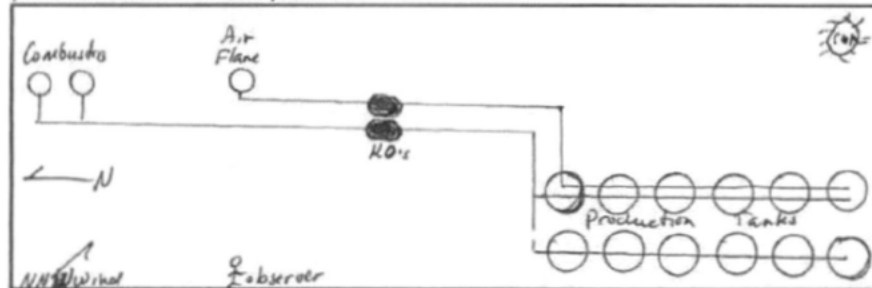
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Baby powder in sealing surfaces
a) If No, was a repair completed during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		#100016679, #1000166211
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				Shut off valve for control valves not working, #1000166211
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	York Ranch 5-37-69 A-Pad	Property Number:	912527
Date ¹ :	4-26-18	Time:	12:00 pm
Sky Conditions:	Partly Cloudy	Wind Direction:	NNE
Precipitation:	—	Wind Speed:	7 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Air Assisted Flame

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	1200 pm	15 min	0
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	1215 pm		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	York Ranch 5-37-69 A-Pad	Property Number:	912527
Date/Time:	5-30-18 / 9:30 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

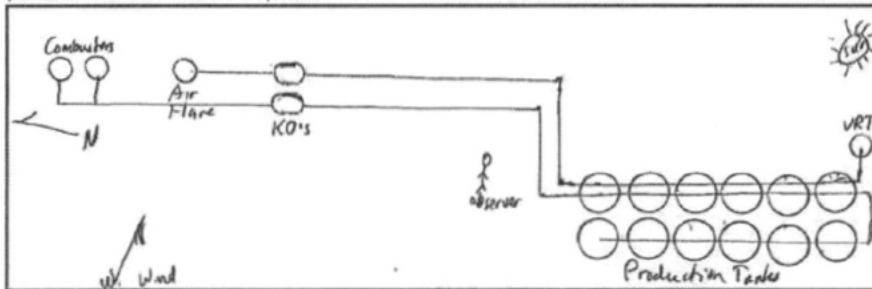
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confined to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				Clamped doors off of sealing surfaces
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking pecking's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	York Ranch S-33-69 A-Field	Property Number:	0912527
Date:	5-30-18	Time:	9:55 am
Sky Conditions:	Sunny	Wind Direction:	West
Precipitation:	—	Wind Speed:	7 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	Air Assisted Steam Combustors

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ¹	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ²
Begin Observation	10:11 am	15 min, 0 sec	0 min, 0 sec
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	10:26 am		

- Ensure inspections are completed at least 14 days apart.
- Ensure clock start and end times are at least 15 min duration.
- If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
- Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	York Ranch S-33-69 A-Field	Property Number:	0912527
Date/Time:	6/24/18 8:00 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

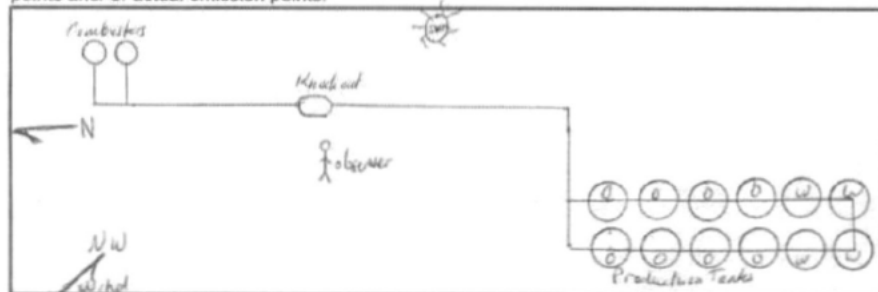
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	Yorkland 5-JH65 A Prod	Property Number:	0410527
Date:	6-24-18	Time:	8:25am
Sky Conditions:	Sunny	Wind Direction:	NW
Precipitation:	—	Wind Speed:	6 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	2 Combustors

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ¹	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	8:40am	15 min 0 sec	15 min 0 sec
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	8:55 am		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOO Monthly Observations.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	Yorkland 5-JH65 A Prod	Property Number:	0410527
Date/Time:	7-30-18 / 10:15 am	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

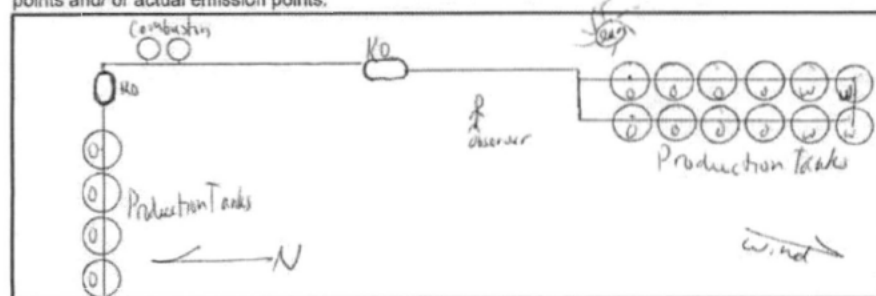
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confined to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		2 leaking hatches
a) If No, was a repair completed during inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Cleaned hatches
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				Cleaned hatches of sand and baby powder
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) If lock-and-key is used, are there records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	Yukon 5369 A Road	Property Number:	912527
Date:	7-30-18	Time:	11:30
Sky Conditions:	Sunny	Wind Direction:	NNE
Precipitation:	—	Wind Speed:	8 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	2 combustors

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ¹	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ¹
Begin Observation	11:12	15 min 0 sec	0 min 0 sec
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	11:27		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min., check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOO's Monthly Observation.

Jan 24, 2018

Facility Inspection Checklist

Facility Name:	Yukon 5369 A Road	Property Number:	912527
Date/Time:	7-30-18 2:50 pm	Observer Name:	(b) (6)

Equipment Inspection

DIRECTIONS: The following form must be completed at least monthly and retained for a period of at least 5 years.
NOTE: If "No" is selected contact the Production Foreman or Superintendent and Designated Air Representative and provide an explanation regarding the repairs or adjustments made in the space provided. If repairs were unsuccessful, ensure a SAP Notification is created to ensure a leak repair is attempted within 5 days and completed within 30 days of the inspection. Smoking equipment must be repaired as soon as practicable.

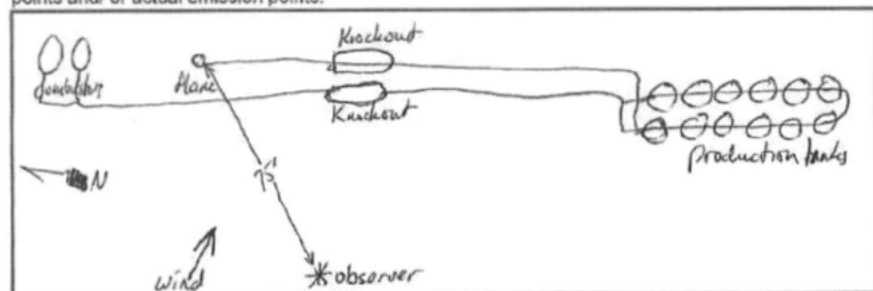
Smoking Equipment:	Yes	No	N/A	Explanation/Corrective Action:
1. Was all equipment at the facility observed to be operating smokeless?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, and the equipment is a flare or combustor, is air vent free of obstruction and is liquid confirmed to not be reaching the combustor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If No, contact Maintenance Planner and record SAP Notification Number:				
d) List Equipment Smoking:				
e) Adjustments/Repairs Made:				
Venting Equipment:	Yes	No	N/A	Explanation/Corrective Action:
2. Were tank hatches observed to be latched and closed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Open, closed verified with FLIR
3. Were tank pressure relief valves or closed tank hatches keeping gas in the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		FLIR, gas plate install working. Venting. Sealant added as per spec. with FLIR
a) If No, was a repair completed during inspection?	<input type="checkbox"/>	<input type="checkbox"/>		
b) If No, contact Maintenance Planner and record SAP Notification Number:				
c) If No, was the leaking was grease or other appropriate material applied to gasket or seal (N/A indicates the leak was not a gasket or seal)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Adjustments/Repairs Made:				
4. Is gas being contained within equipment other than tank systems (compressor pressure relief valves, missing plugs, leaking packing's, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) List equipment venting:				
b) Adjustments/Repairs Made:				
5. Are vapor collection hoses being utilized at truck loading areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Combustion Equipment:	Yes	No	N/A	Explanation/Corrective Action:
6. Is the flare or combustor pilot lit and operating correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a) If No, is air vent obstructed or is liquid reaching the combustor or flare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Adjustments/Repairs Made:				
Fugitive Components:	Yes	No	N/A	Explanation/Corrective Action:
7. Is gas being contained in all piping systems observed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Closed Vent System Manual Bypass Valve:	Yes	No	N/A	Explanation/Corrective Action:
8. Were all manual bypass valves capable of preventing gas from tanks from reaching the combustor or flare inspected and car-sealed or locked in a non-diverting position?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) If lock-and-key is used, are these records each time the lock is checked out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If car seal is used, has the car seal been broken since the last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Record car seal number observed during inspection:				

Jan 24, 2018

Smoking Emissions Inspection

Company:	Chesapeake Energy	Observer Name:	(b) (6)
Facility Name:	Kirk Ranch 37675 A-Pool	Property Number:	0912527
Date ¹ :	1-26-2018	Time:	3:00 pm
Sky Conditions:	Clear, Sunny	Wind Direction:	West
Precipitation:	—	Wind Speed:	9-15 mph
Industry:	Upstream Oil and Gas	Equipment Observed:	

Sketch Process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Observations	Clock Time ²	Observation Period Duration, min:sec	Accumulated Emission Time, min:sec ³
Begin Observation	3:00 pm	15 min	
Record the following: • Initial clock time • Total observation time • Total emissions time • Final clock time			
End Observation	3:15 pm		

1. Ensure inspections are completed at least 14 days apart.
2. Ensure clock start and end times are at least 15 min duration.
3. If accumulated emission time exceeds 1 min, check air vent for obstruction and clear if obstructed. Check for liquid reaching combustor. Repair as soon as practicable.
4. Completed form must be saved in Document Explorer under the Facility Name and in Air Compliance folder and retained for at least 5 years. The file name should follow the following document naming convention: YYYY-MM-DD Facility Name OOOOa Monthly Observation.

4. Records of Maintenance and Repair Log

There were no instances of devices failing the visible emissions test during monthly inspections required by 60.5413a(e)(4) to report. Therefore, there are no maintenance and repair log records maintained under 60.54131(e)(4) to report pursuant to 60.5420(c)(5)(vi)(F)(3).

5. Manufacturer Operations and Maintenance Manual



Installation, Operation and Maintenance Manual

For

Emission Control Device (ECD)

WARNING

Do not attempt to operate ECD without first familiarizing yourself with these instructions. Improper operation of the equipment may result in injury to persons, loss of life, and damage to equipment.

Prepared By:
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Norman, OK 73069
405-928-7373
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TABLE OF CONTENTS

<u>Subject</u>	<u>Page</u>
Safety Summary.....	2
Introduction.....	4
Product Line Specifications.....	5
ECD Field Set-up and Installation.....	10
ARC Pilot Installation and Troubleshooting.....	14
ECD Operation.....	16
Liquid Drip Pot.....	17
Maintenance.....	18
References.....	21

SAFETY SUMMARY

The following are general safety precautions for the operation and maintenance of the ECD system. Instructions contained in this Operating Manual are in addition to and do not replace the Operating Company's and Owner's existing operating procedures and policies with regard to standard safety precautions for flare operation and maintenance. This manual provides only basic guidance in the initial start-up and the normal operation of the ECD flare/combustor and is intended to be used by technically competent personnel familiar with and qualified in the operation and maintenance of the ECD flare equipment.

WARNING

ECD Flares are capable of producing extremely high heat radiation levels in close proximity to the flame. Personnel exposed to such radiation levels may suffer severe burns. Equipment located near the flame must be designed for high temperatures.



WARNING

ECD Flare systems may contain or produce toxic gases. Appropriate safety precautions must be taken whenever there is a potential for personnel exposure to flare gases. In particular, exposure may occur during close inspection of the flare tip or pilot and during removal or maintenance of equipment attached to the flare header.



WARNING

Direct Spark Igniters such as the ARC Igniter used in Cimarron ECDs generate high voltages capable to causing death. Use extreme caution when servicing the igniter module. Any circuit on which work is being performed should be de-energized and the switch should be locked open. Follow proper grounding procedures prior to energizing the igniter unit.



WARNING

Do not introduce condensed liquids into the ECD burner. Condensate/water liquids entering an ECD burner can cause uncontrolled flare-up or fire, erratic combustion and soot formation. These are extremely dangerous situations that can cause injury to personnel and destruction of equipment.

WARNING

During normal operation, ECD starts automatically whenever vent gas is present at the ECD burner. Follow ECD shutdown prior to any inspection or maintenance work on the unit.



WARNING

The internal space within the square base of ECD model ECD-3-48HV-90 is a confined space. Follow ECD shutdown and Company Confined Space Entry procedures prior to entry into the ECD-3-48HV-90 base unit.



INTRODUCTION

Cimarron ECDs (Emissions Control Device) are designed primarily for incineration of vent gases from tank battery atmospheric condensate, oil and produced water storage tanks. Emission losses from storage tanks in the oil and gas field processing industry include working losses, breathing losses, and flash losses (EIIP, 1999). Working losses refer to the combined loss from filling and emptying the tank (EIIP, 1999). Filling losses occur when the VOC contained in the saturated air are displaced from a fixed-roof vessel during loading (EIIP, 1999). Emptying losses occur when air drawn into the tank becomes saturated and expands, exceeding the capacity of the vapor space (EIIP, 1999). Breathing losses are the expulsion of vapor from a tank through vapor expansion caused by daily changes in temperature and pressure (EIIP, 1999). Flash losses occur when fluids exiting vessels at pressures above atmospheric enter storage tanks operating at atmospheric pressure which are vented to the atmosphere (EIIP, 1999). As the fluid pressure drops to atmospheric pressure, the gas which is entrained in the fluid is then released (TNRCC, 1996). Flash losses often exceed breathing and working losses (Boyer and Brodnax, 1996).

Cimarron ECDs come in various sizes based on the flow conditions of vent gases from the storage tank battery. The ECD is an Enclosed Ground Flare, as defined in API Publication 931 C15. The ECD is located at ground level and the burner head is located within the stack shell. The shell reduces noise, luminosity, and heat radiation and provides wind protection.

Cimarron ECD Meets CFR Title 40 Requirements

Cimarron ECD meets the requirements of CFR Title 40 §63.771(d)(1)(i) when operated as a control device per the requirements of CFR Title 40 §63.11(b) and the operating criteria of the specific ECD model listed in the Design Section. ECD is designed for greater than 98% Destruction Removal Efficiency (DRE) of total volatile organic compounds (TVOC) per CFR Title 40 §60, Appendix A Source Emission test methods.

Product Line Specifications

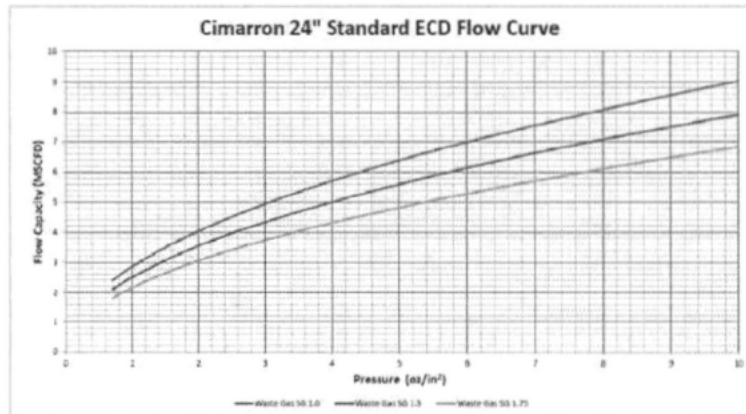
Model: ECD-2-24-64

Operational Design

Lower Operating Pressure: 1 oz/in²
Upper Operating Pressure: 10 oz/in²
TVOC Destruction Efficiency: >98% DRE when operated within pressure range



Calculated Flow Capacity Curve



Mechanical Design

Overall Dimensions: 24" DIA x 100" Height
Weight: Approx. 720 pounds (excludes Concrete Pad)
Burner: 64 Orifices
Stack: Un-Insulated
Stack Internal Operating Temperature: 500 – 1200°F
Design Structure Wind Loading: N/A – less than 20 ft tall
Ambient Temperature: -20 to 120 °F
Electrical Area Classification: Non-hazardous

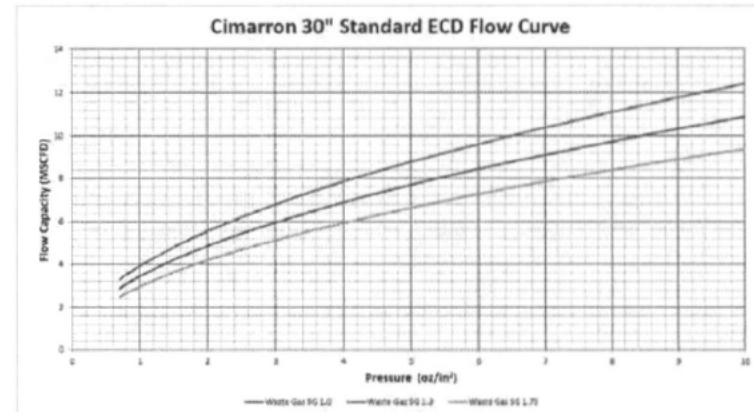
Model: ECD-2-30-88

Operational Design

Lower Operating Pressure: 1 oz/in²
Upper Operating Pressure: 10 oz/in²
TVOC Destruction Efficiency: >98% DRE when operating within pressure range



Calculated Flow Capacity Curve



Mechanical Design

Overall Dimensions: 30" DIA x 102" Height
Weight: Approx. 810 pounds (excludes Concrete Pad)
Burner: 88 Orifices
Stack: Un-Insulated
Stack Internal Operating Temperature: 500 – 1200°F
Design Structure Wind Loading: N/A – less than 20 ft tall
Ambient Temperature: -20 to 120 °F
Electrical Area Classification: Non-hazardous

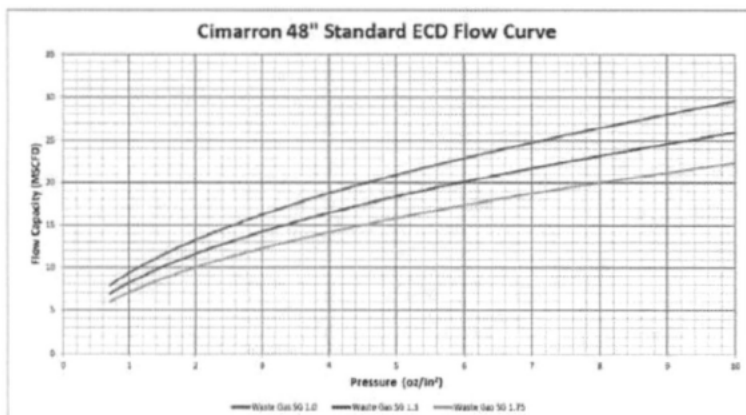
Model: ECD-2-48-210

Operational Design

Lower Operating Pressure: 1 oz/in²
Upper Operating Pressure: 10 oz/in²
TVOC Destruction Efficiency: >98% DRE when operating within pressure range



Calculated Flow Capacity Curve



Mechanical Design

Overall Dimensions: 48" DIA x 139" Height
Weight: Approx. 1,750 pounds (excludes Concrete Pad)
Burner: 210 Orifices
Stack: Un-Insulated
Stack Internal Operating Temperature: 500 – 1200°F
Design Structure Wind Loading: N/A – less than 20 ft tall
Ambient Temperature: -20 to 120 °F
Electrical Area Classification: Non-hazardous

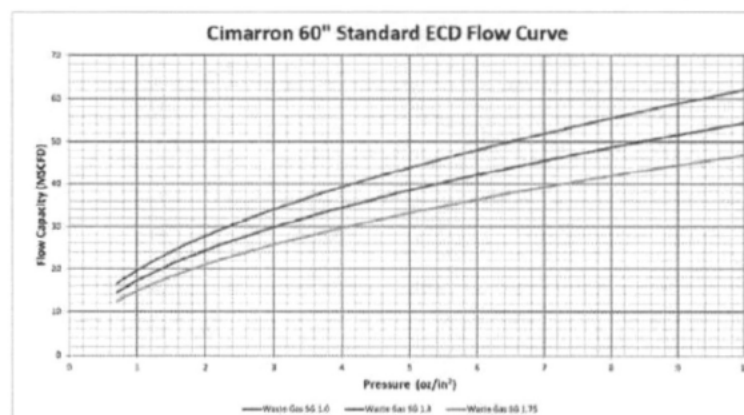
Model: ECD-3-60-440

Operational Design

Lower Operating Pressure: 1 oz/in²
Upper Operating Pressure: 10 oz/in²
TVOC Destruction Efficiency: >98% DRE when operating within pressure range



Calculated Flow Capacity Curve



Mechanical Design

Overall Dimensions: 60" DIA x 161" Height
Weight: Approx. 2,150 pounds (excludes Concrete Pad)
Burner: 440 Orifices
Stack: Insulated
Stack Internal Operating Temperature: 600 – 1500°F
Design Structure Wind Loading: N/A – less than 20 ft tall
Ambient Temperature: -20 to 120 °F
Electrical Area Classification: Non-hazardous

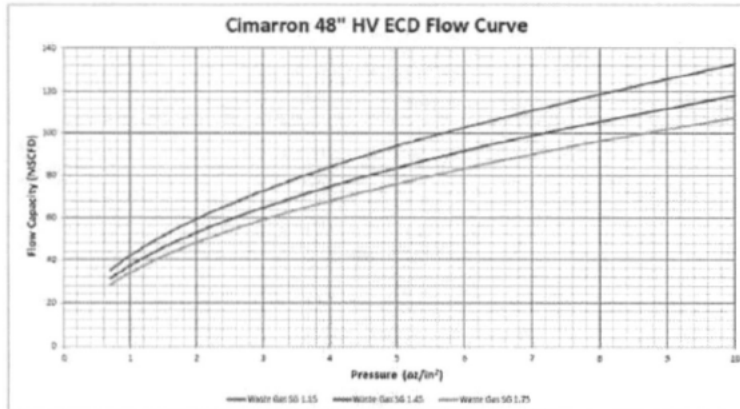
Model: ECD-3-48HV-90

Operational Design

Lower Operating Pressure: 1 oz/in²
Upper Operating Pressure: 10 oz/in²
TVOC Destruction Efficiency: >98% DRE when operating within pressure range



Calculated Flow Capacity Curve



Mechanical Design

Overall Dimensions: 56" Square Base x 303" Height
Weight: Approx. 4,380 pounds (excludes Concrete Pad)
Burner: 90 Orifices (F-90)
Stack: Insulated
Stack Internal Operating Temperature: 800 – 2000°F
Design Structure Wind Loading: 90 mph 3sec Wind Gust per ASCE 7-05
Ambient Temperature: -20 to 120 °F
Electrical Area Classification: Non-hazardous

ECD FIELD SET-UP AND INSTALLATION

- 1) Identify location for ECD at a distance determined by company specifications and/or government requirements. See Figure 2 or Figure 3 for Cimarron recommendation.
- 2) Set the concrete pad at the determined location with the bottom flush with the level grade. The soil should be compacted and rated Class 4 or better (Soil Class referenced in Table 1804.2 of IBC 2006 Edition). ECD concrete pad **must not** be set on Class 5 soils (clay, sandy clay, silty clay, silt and sandy silt) as defined and referenced in Table 1804.2 of IBC 2006 Edition.
- 3) Erect ECD and anchor to concrete pad. Tighten all bolting follow bolting manufacturer torque specifications. Contact Cimarron for assistance with these bolting specifications.
- 4) Locate Fuel Gas Scrubber for the pilot gas supply and pipe up according to Figure 1.
- 5) Locate Drip Pot (Manual Dump) and pipe up according to Figure 2 or Figure 3. The Drip Pot may also be equipped with an automatic level controlled dump and associated liquids booster or pumping system. In this case, the Drip Pot may be located adjacent to the stock tanks as in Figure 3, thus requiring short liquid dump lines back to the stock tanks.

Note 1: Make sure pipe from Stock Tank is sloped to the Drip Pot at an angle of approximately 1 inch per 10 feet. It is also recommended that the vent gas pipe is insulated to minimize liquid condensation as a result of low ambient temperatures.

Note 2: It is recommended that the condensed liquid line back to the tanks be protected from freezing (buried, insulated, etc.).

- 6) Install the in-line gas flame arrestor as indicated in Figure 1. It is imperative this flame arrestor does not exceed a maximum piping length (including fittings) of seven(7) feet from the main burner. It is recommended that hammer union connections are installed upstream and downstream of this gas flame arrestor for easy maintenance access.
- 7) Install Pilot light assembly as shown in Figure 1.
- 8) Mount Solar Panel with leg support bracket or alternate pipe mounting system.
Note: Locate and face the panel in the direction that receives the most sunlight during the day.
- 9) Locate the ARC Igniter and place on the flat surface on the side of the ECD (see page 14).
- 10) Wire the ARC Igniter to the solar panel and pilot according to ARC Igniter Installation (see page 14).
- 11) After all piping and wiring is completed, supply gas to the fuel gas scrubber (125psig max).
- 12) Open pilot gas isolation valve and set pilot pressure regulator at 5 to 7 psig.
- 13) Start up the ARC Igniter as directed in the ECD Start-up procedures (pg. 16).
- 14) Once pilot is lit and operating satisfactorily, vent gas from tanks may be introduced to the system.

Note: It might take up to 15 minutes for the vent gas to purge the air out of the waste gas line to the ECD and provide sufficient gas to fully combust.

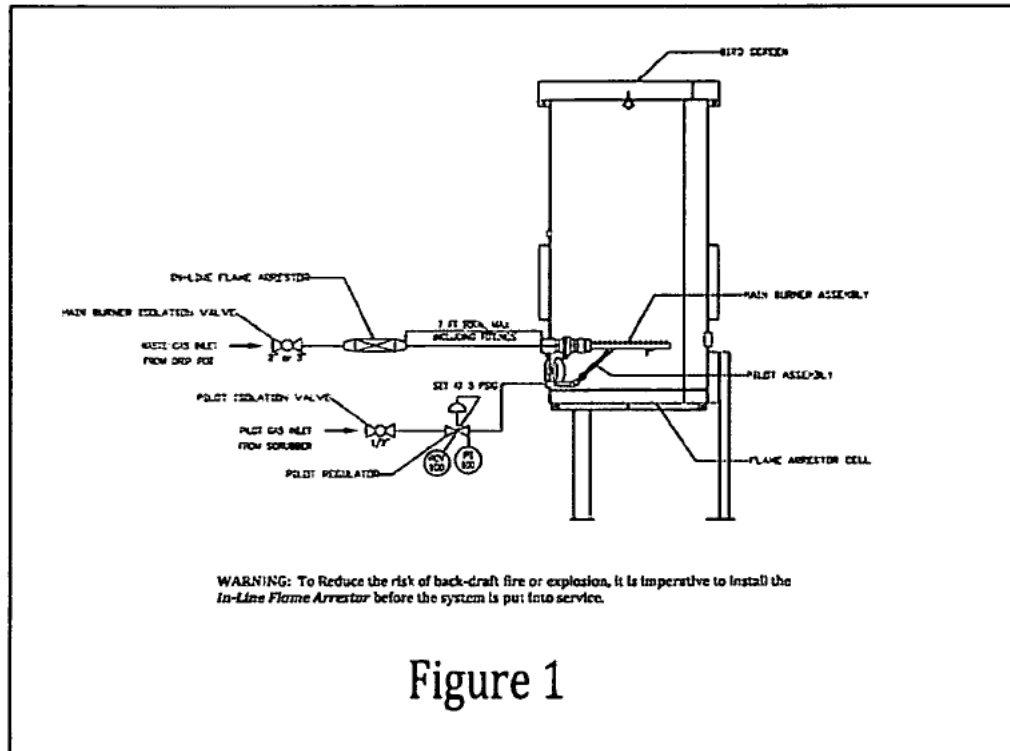


Figure 1

CIMARRON
CIMARRON ENERGY INC.

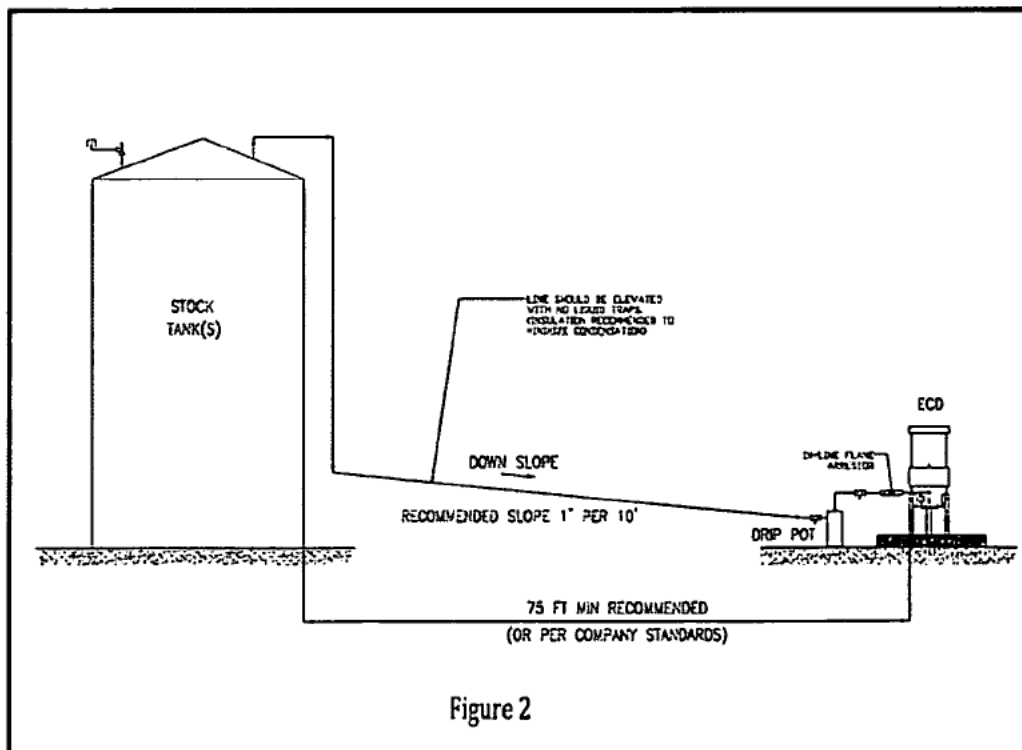


Figure 2

CIMARRON
CIMARRON ENERGY INC.

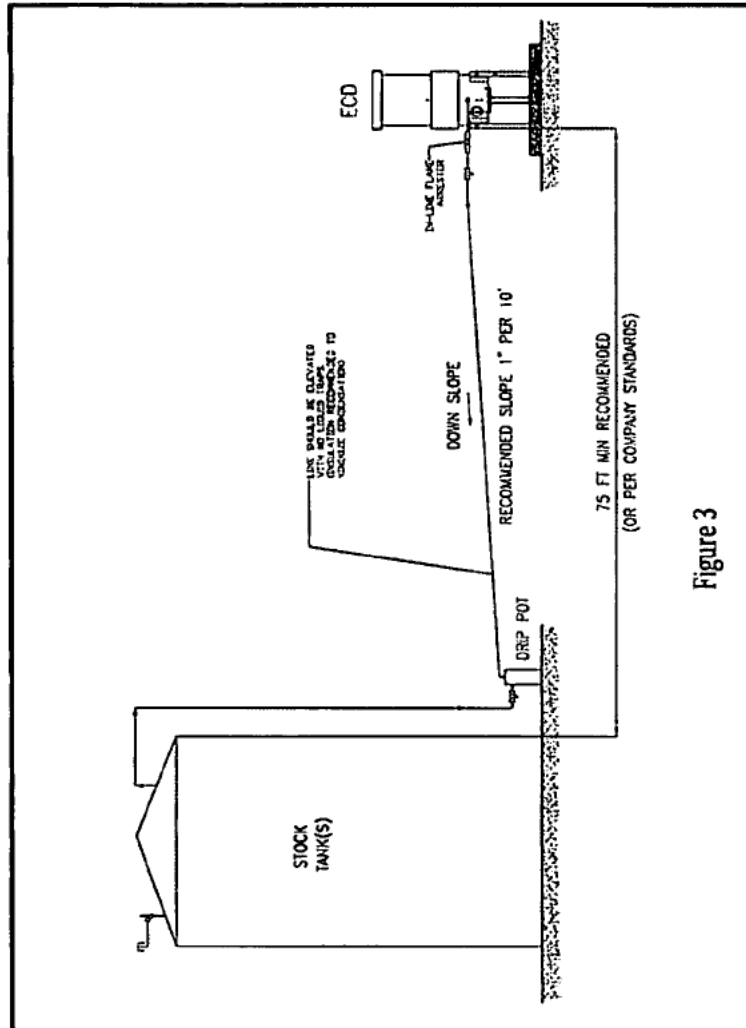


Figure 3

ARC PILOT INSTALLATION AND TROUBLESHOOTING

Cimarron ARC Pilot Igniter Installation

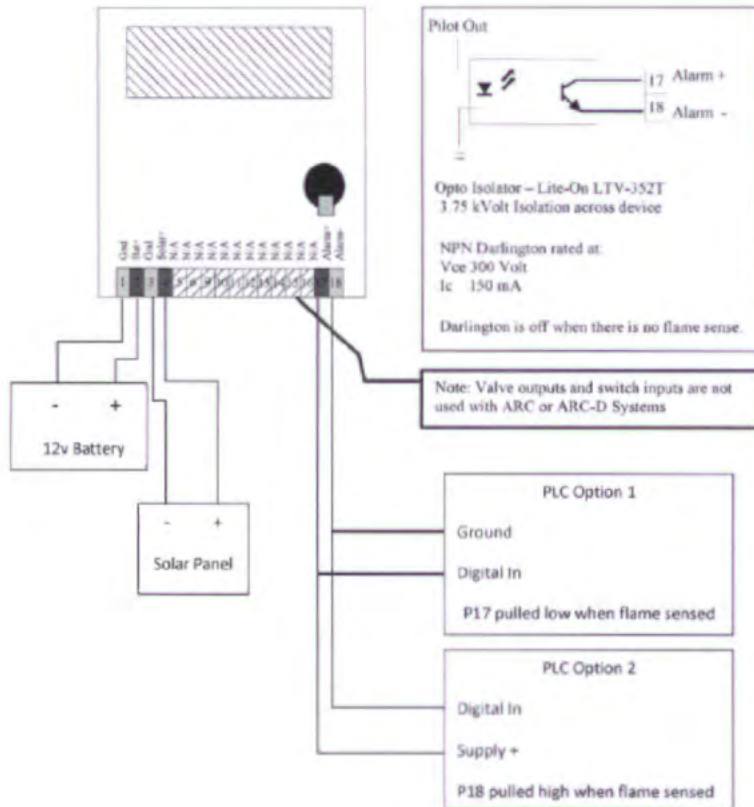
- 1) Mount igniter unit on supplied mounting bracket or on a vertical surface away from heat. Also refer to ARC Troubleshooting Guide Document 1200-100 for more information.
- 2) Cut and install conduit and connectors.
- 3) Refer to Schematic A and follow the instructions below:
 - a) Cut the igniter wire and to the length needed and run it inside the conduit and connect the igniter wire with female spade connector to the coil inside the ARC.
 - b) If using a solar panel, run the wire through the liquid tight fitting on the bottom of the unit and attach to the positive and negative solar terminals of the terminal block marked "Solar".
 - c) Install electrode Igniter to cleanly grounded $\frac{1}{2}$ " pipe (Igniter Tip should be a $\frac{1}{4}$ " inside pilot rosebud and $\frac{3}{32}$ " to $\frac{5}{32}$ " away from sidewall of rosebud).
 - d) Connect electrode to the end of the igniter wire.
- 4) Check wiring to ensure proper connection and connect the battery to test the unit.

Note: It is the Installer's/User's responsibility to adhere to all Local, State and Federal codes for wiring and gas connections.

ARC Troubleshooting

Refer to ARC Troubleshooting Guide Document 1200-100.

Schematic A - Wiring Diagram for ARC and ARC-D Systems



ECD OPERATION

Operation Caution: For safety, ensure flame arrestor is secure and in proper working order prior to lighting flame. It is recommended to follow API RP-12N (latest edition) for testing the flame arrestor and accessories.

ECD Start-up

- 1) Make sure the ARC Igniter battery has a full charge and all the terminal connections are tight with no loose wiring. Keep the manual valves that control the pilot and main burner gas lines closed until ready to ignite.
- 2) Open ARC enclosure box and turn the power switch to the "On" position. The LCD will display the "Firmware Series" and then state "Igniting Pilot".
- 3) With the ARC displaying "Igniting Pilot", slowly open pilot isolation valve to light pilot.
- 4) Once pilot flame is established, slowly open the Main Burner isolation manual valve.
- 5) Close thief hatches on tanks and tank blow down valves to maintain a closed vent gas system to the ECD.

Note: It is recommended that the entire stock tank vent gas system be a closed system without any system gas leaks. All vent gases generated in the stock tanks should be directed to the ECD for emission destruction. If stock tank unloading is performed without a vapor equalizing loop back to the stock tank, a vacuum breaker should be installed in the vent gas line to prevent stock tank implosion. A vacuum breaker is nothing more than a check valve permitting draw of ambient air into the vent system during the truck loading operation. In the absence of a vacuum breaker, the thief hatch on the unloaded stock tank will need to be opened for the duration of the truck loading operation.

ECD Shutdown

- 1) Open thief hatches and blow down valves on stock tanks.
- 2) Close Main Burner Isolation Valve at ECD and Lock-out/Tag-out (LO/TO).
- 3) Close Pilot Isolation Manual Valve at ECD and LO/TO.
- 4) Turn ARC Ignition System "Off".
- 5) Open ECD access cover (all models except ECD-3-48HV-90) or the access door (Model ECD-3-48HV-90) and ventilate for minimum of 15 minutes or per Company Policy.

LIQUID DRIP POT

There are two different configurations for dumping the liquid drip pot as it is separated from the vent gas before it is burned in the ECD.

- 1) The first configuration uses a Drip Pot where the liquid has to be manually dumped.
- 2) The second configuration uses an automated liquid dump Drip Pot. In this system the liquid is automatically dumped back into the tanks or separate reservoir/sump.

Operation:

- a) When vent gas from the tanks enter the Drip Pot, the gaseous components continue out through the connection near the top of the drip pot to the ECD and the entrained liquids drop to the bottom.
- b) As liquids accumulate in the drip pot, the level will rise and trip the level control.
- c) The level control will open a low control valve and pressure up the drip pot and "boost" the liquid enough to push it back into the stock tank(s). Alternatively, a gas powered pump can used to pump the liquid back to the stock tank(s).

DANGER

It is imperative that liquids are not introduced into the ECD burner. Condensate/water liquids entering an ECD burner can cause uncontrolled flare-ups, erratic combustion and soot formation. These are extremely dangerous situations that can cause injury to personnel and destruction of equipment.

MAINTENANCE

This section suggests a periodic inspection of key components of the ECD at various intervals. The frequency of the inspection is a recommendation and can be modified based on Company policy. If equipment troubleshooting indicates a problem with a specific component, follow the maintenance instructions as described.

Liquid Drip Pot

Daily or as needed, manually drain fuel gas scrubber and the Drip Pot into approved container and dispose/collect per company guidelines.

Pilot Fuel Gas Scrubber

Daily or as needed, manually drain fuel gas scrubber and the Drip Pot into approved container and dispose/collect per company guidelines.

Operating Pressures

Routinely (daily) check Pressures.

- Pilot Regulator should be set between 5 and 7 psig.
- ECD should be operating at low pressures of 1 oz/in² to 10 oz/in².

Air Flame Arrestor Cells

All ECDs except ECD-3-48HV-90

It is recommended to check the Air Flame Arrestor Cell at bottom of ECD on a semi-annual basis.

- 1) Shutdown ECD (as listed on page 16) prior to inspection.
- 2) Open the access cover on the side of the ECD stack and inspect the air cell for dirt or other foreign material. This contamination will plug the fluted openings within the air cell and decrease air flow to the burner.

Note: Severely dirty Air Flame Cell can cause ECD to start smoking.

- 3) In cases of light blockage, it may be possible to dislodge foreign material(s) by introducing compressed air upward from the bottom of the air cell. Use a cleaning nozzle with less than 90 psig of compressed air. Care must be taken not to damage the flutes on the air cell.
- 4) If foreign material blockage is more severe, remove the air cell for cleaning:
 - a) Remove the bolting on the hold-up angle brackets supporting the air cell. Additional field assistance may be required to bear the weight of the air cell.

- b) Once removed, use high pressure water spray to dislodge foreign material blockage of the air cell.
- c) Air dry the flame cell and re-install the air flame cell.

ECD-3-48HV-90

It is recommended to check the Air Flame Arrestor Cells in the base unit of the ECD on a semi-annual basis.

- 1) Shutdown ECD (as listed on page 16) prior to inspection.
- 2) Open the access door on the base unit of the ECD and perform a "Confined Space Entry Permit" procedure per company policy.
- 3) Carefully enter the base unit and inspect all four (4) air cells for dirt or other foreign material. This contamination will plug the fluted openings within the air cell and decrease air flow to the burner.

Note: Severely dirty Air Flame Cell can cause ECD to start smoking.

- 4) In cases of light blockage, it may be possible to dislodge foreign material(s) by introducing compressed air outward from the inner surface of the air cell. Use a cleaning nozzle with less than 90 psig of compressed air. Care must be taken not to damage the flutes on the air cell.
- 5) If foreign material blockage is more severe, remove the air cell for cleaning:
 - a) Remove the bolting on the hold-up angle brackets supporting the air cell. Additional field assistance may be required to bear the weight of the air cell.
 - b) Once removed, use high pressure water spray to dislodge foreign material blockage of the air cell.
 - c) Air dry the flame cell and re-install the air flame cell.

ARC Igniter

Periodically (monthly recommended) test the ARC igniter per instructions in the ARC Troubleshooting document 1200-100.

In-line Gas Flame Arrestor

It is recommended to check the In-line Gas flame arrestor in the piping to the ECD on an annual basis.

- 1) Shutdown ECD as described on page 16 prior to inspection.
- 2) It is not possible to inspect the in-line gas flame arrestor in place. Remove the in-line arrestor from the piping and inspect the flutes in the arrestor for debris blockage. The use of hammer unions upstream and downstream of this arrestor would make this task easier.
- 3) Use compressed air at less than 90 psig to dislodge debris. If cleaning is not possible in the field, replace in-line flame arrestor with a spare unit (which is available from Cimarron).
- 4) Re-install in-line arrestor in the piping. Assure that all piping threads are tight and gas does not leak from the pipe threads.

Main Burner

Burner Removal (All ECDs except ECD-3-48HV-90)

- 1) Complete shutdown of ECD is required prior to this process as described on page 16.
- 2) Remove the Air Cell on bottom of ECD per the instructions on page 18 to access the burner assembly.
- 3) Disconnect Ignition Cable and Igniter Tip to the pilot assembly.
- 4) Disconnect pilot fuel gas piping at the Hex union and remove Pilot assembly bracket. Carefully remove pilot assembly out of the way.
- 5) Disconnect the waste gas piping to the main burner at the hammer union. Remove the bolting on the burner bracket and carefully remove burner assembly. Additional field assistance may be necessary to bear the weight of the burner.
- 6) Inspect the burner per the guidelines below.
- 7) Re-install all components removed in reverse order and verify that all piping connections are tight and secure.

Burner Removal (ECD-3-48HV-90)

- 1) Complete shutdown of ECD is required prior to this process as described on page 16.
- 2) Open the access door on the base unit of the ECD and perform a "Confined Space Entry Permit" procedure per company policy.
- 3) Carefully enter the base unit.
- 4) Disconnect Ignition Cable and Igniter Tip to the pilot assembly.
- 5) Disconnect pilot fuel gas piping at the Hex union and remove Pilot assembly bracket. Carefully remove pilot assembly out of the way.
- 6) Disconnect the waste gas piping to the main burner at the hammer union. Remove the bolting on the burner bracket and carefully remove burner assembly. Additional field assistance may be necessary to bear the weight of the burner.
- 7) Inspect the burner per the guidelines below.
- 8) Re-install all components removed in reverse order and verify that all piping connections are tight and secure.

Burner Inspection and Cleaning

Burner inspection and cleaning is recommended on a semi-annual schedule.

All ECDs except ECD-3-48HV-90

With burner assembly removed from ECD, verify that all jets are clean and in good working order (replace any jets that are plugged, destroyed or missing).

ECD-3-48HV-90

With burner assembly removed from ECD, verify that all orifices are clean and in good working order (consult with Cimarron if there are issues).



REFERENCES

Boyer, Brian E. and Kenneth Brodnax, 1996. *Oil and Gas Production Emission Factors and Estimation Methods*. Complete Oil Field Management and Maintenance, Inc., Lafayette, Louisiana, and Mobil Exploration and Production Company, Houston, Texas. Presented at the Emission Inventory: Key to Planning Permits, Compliance and Reporting Conference, Air and Waste Management Association, September 4-6, 1996, New Orleans, Louisiana.

EIIP, 1999. *Preferred and Alternative Methods for Estimating Air Emissions from Oil and Gas Field Production and Processing Operations, Volume II, Chapter 10*. Prepared for the Point Sources Committee, Emissions Inventory Improvement Program under EPA Contract. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.

TNRCC, 1996. *Technical Guidance Package for Annual Air Emissions Inventory Questionnaires, Oil and Gas Industry, Draft*. Texas Natural Resource Conservation Commission. Austin, Texas.



ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Lebar 15-34-69 A TR 22H Oil Production Facility
October 12, 2018

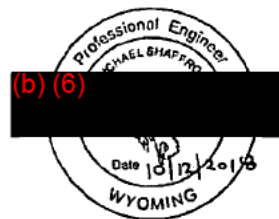
Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC York Ranch 33-69-5 A Pad Oil Production Facility
October 12, 2018

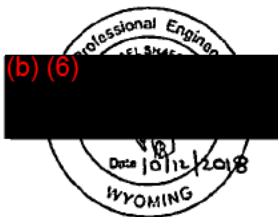
Professional Engineer Certification

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Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15952



NSPS SUBPART 6000a ANNUAL REPORT: PNEUMATIC PUMP AFFECTED FACILITIES
Chesapeake Operating LLC 8/2/2017-8/1/2018

Facility Record Number	Facility Name	STATE_NAME	Identification of Each Pump (60.4550a)(3)(1))	Was the pneumatic pump constructed, modified, or reconstructed during the reporting period? (60.5420a)(3)(3))	What condition does the pneumatic pump meet? (60.5420a)(3)(3))	Control device design efficiency (60.5420a)(3)(3)) (C)	Pneumatic pump previously reported with a change in the reported condition during the reporting period?	Deviations
922365	LINDEN 15-34-69 B PAD	Wyoming	2337401	Y	Emissions routed to a control device	95%	N	Pump not controlled for 8 days
922365	LINDEN 19-34-69 B PAD	Wyoming	2337405	Y	Emissions routed to a control device	95%	N	Pump not controlled for 8 days
929741	SPU 12-84-72 USA B PAD	Wyoming	2335061	Y	Emissions routed to a control device	95%	N	N/A
928850	WYOMING 36-34-69 ST B PAD	Wyoming	2337403	Y	Emissions routed to a control device	95%	N	N/A
915283	CLAUSEN BNCH U 7-34-70 USA A P	Wyoming	2337409	Y	Emissions routed to a control device	95%	N	N/A
915283	CLAUSEN BNCH U 7-34-70 USA A P	Wyoming	2168051	Y	Emissions routed to a control device	95%	N	N/A



ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Wyoming 36-34-69 ST B Pad Oil Production Facility
October 12, 2018

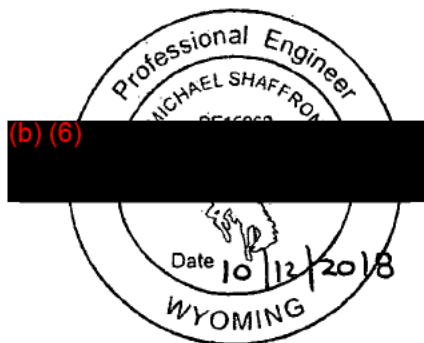
Professional Engineer Certification

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Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC SFU 12-34-72 USA B Pad Oil Production Facility

October 12, 2018

Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

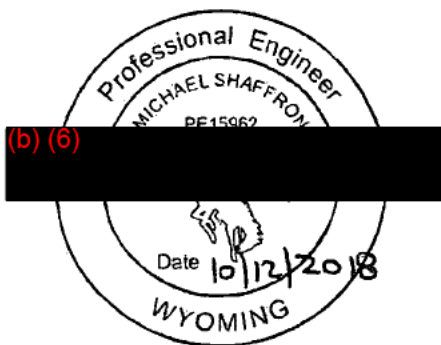
Michael Shaffron, P.E.

Certifying Professional Engineer

10/12/2018

Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Linden 19-34-69 B Pad Oil Production Facility

October 12, 2018

Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

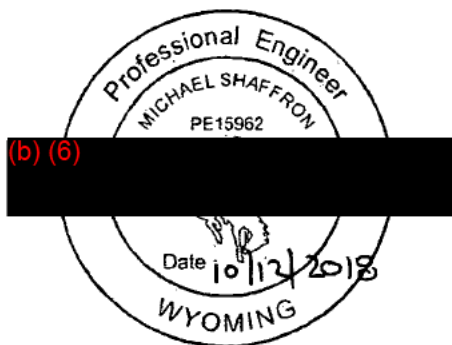
Michael Shaffron, P.E.

Certifying Professional Engineer

10/10/2018

Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Clausen Ranch Unit 7-34-70 USA A Pad Oil Production Facility
October 12, 2018

Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

Michael Shaffron, P.E.
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